Yahoo Group Archive: DrakeRadio (2014-01 — 2014-05)

Yahoo Group summary: Drake Radios

These Yahoo Groups messages were archived in WARC format by ArchiveTeam in 2018. This PDF was generated by Digital Library of Amateur Radio & Communications from the WARC files in 2026.

Date span: 2014-01-01 through 2014-05-31

Source WARC: drakeradio.EYFOPdl.warc.gz

Source item: https://archive.org/details/yahoo-groups-2018-06-01T00-05-23Z-e1e146

Messages included in this PDF: 3325

Message records with no body available in the source archive: 1

Yahoo replaced the domain portions of email addresses with @... in the archived messages. Characters lost in Yahoo's archived text appear as ?.

Messages are presented in ascending Yahoo message-ID order. Gaps indicate records absent from the source WARC or messages omitted from this PDF as spam.

17978. Sloping Front Box for DDS VFO for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-01 17:33:58 UTC
From: k3jls@verizon.net
Topic: 17978 Message: 17978

Hello,

If anyone is interested, there's a nice sloping front box for sale on ebay that will provide a spiffy enclosure for an external DDS VFO or the TR7.

Here's the link: http://www.ebay.com/itm/SE453N-4-Aluminum-Sloped-Instrument-Console-Enclosure-Case-Box-for-DIY-/251202040489?pt=US_Pro_Audio_Parts_Accessories&hash=item3a7ccef2a9

This seller has 3 left and I just bought one for another external DDS VFO that I'll be selling on eBay.

I expect to have the new batch of P/C boards this Friday along with the parts to build 2 more units, one of which will be installed in my TR7 proper.

Details, the M/P code and a parts list are on my website - www.k3jls.net/tentec.html

73's - Joe - K3JLS

17979. What the L?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-02 02:16:37 UTC
From: Paul Kraemer
Topic: 17979 Message: 17979

In the last couple weeks I have been asked by several people working on
their AC-4 supplies what the inductance value of the little line chokes is.
Don't know I have ever seen it listed so I measured one
L=0.016 millihenry @ test frequency of 120hz
Now we have a number for whatever it's worth.
I have seen similar units in Mouser if anyone needs to replace one
Happy New Year to all and to all a good night!
Paul K0UYA

17980. Re: [DrakeRadio] What the L?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-02 02:20:54 UTC
From: Steve Wedge
Topic: 17979 Message: 17980

That's another part that is in some but not all AC-4's. I just rebuilt one that must have been "transitional", but it had no chokes.

It's plugged into my C-4 power controller, though, to which I added a very heavy-duty Cor-Com line filter years ago, so my AC lines are pretty much filtered anyway

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Paul Kraemer
Sent: Wednesday, January 01, 2014 9:16 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] What the L?

In the last couple weeks I have been asked by several people working on
their AC-4 supplies what the inductance value of the little line chokes is.
Don't know I have ever seen it listed so I measured one
L=0.016 millihenry @ test frequency of 120hz
Now we have a number for whatever it's worth.
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Happy New Year to all and to all a good night!
Paul K0UYA

[Non-text portions of this message have been removed]

17981. FS Drake Station R-4C w/ filters , T-4XC , MS-4, D-104 plus all cables.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-02 04:55:12 UTC
From: bobbyb@frontiernet.net
Topic: 17981 Message: 17981

Excellent cosmetic condition

powers up and tested tx into a dummy load 100W on 40 and 80.

R-4C has 3 drake filters mounted on the back

I purchased these from a fellow ham a while ago with other gear.

I am redoing the shack and decided to stay with my dual kenwood TS-430 set up for now. with an external Icom R-75 on the primary station.

This means the Drakes , the swans, and the yeasu gear needs to go...

station can be tested in Washingtonville, NY.

I paid a fair price for the gear, Please make a fair offer and they will be yours. I can pack and ship. I own a hobby shop and ship daily. They will be bubblepacked, boxed, then inserted in an overpack box with padding. shipped fully insured with signature conf. Buyer pays actual shipping costs.

K3RJB [qrz info is current.]

bobbyb@...
yes I have pics available on request.

no, I am not breaking them up YET.... if they do not sell here in a few days or so they will be on FEEBAY and priced accordingly....

Bobby B

17982. t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 00:23:37 UTC
From: <bad6qd@...>
Topic: 17982 Message: 17982

reviewing the schematic for the upper and lower crystal filters and see the crystal filters are reversed compared to the schematic.removed one filter to verify which is used in lsb.found the one used in lsb is marked model no. 5.645-2.4U and the
usb mode is wired to model no. 5.645-2.4L are these filters wired up reversed.do you need the 2.4u I for usb and the 2.4l for lsb? audio is great in usb
but in lower sb very narrow. ready to replace the lsb filter from steve, but want to ask before replacing the filter. tom wk6f

17983. RE: t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 01:13:45 UTC
From: <bad6qd@...>
Topic: 17982 Message: 17983

also adding a note. viewing from the top of the chassis, the usb filter is mounted on the bottom closes to the chassis and the lsb filter is mounted on top. believe these filters were installed backwards when manufactured or changed by someone.can someone look and see on your fiters. these are color in grey. tom wk6f

17984. t4xb crystal filters physical location

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 01:16:39 UTC
From: <bad6qd@...>
Topic: 17984 Message: 17984

also adding a note. viewing from the top of the chassis, the usb filter is mounted on the bottom closes to the chassis and the lsb filter is mounted on top. believe these filters were installed backwards when manufactured or changed by someone.can someone look and see on your fiters. the physical locations. these are color in grey. tom wk6f

17985. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 01:20:29 UTC
From: Richard Knoppow
Topic: 17982 Message: 17985

-----Original Message-----
From: bad6qd@...
Sent: Jan 2, 2014 4:23 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] t4xb crystal filters

? reviewing? the schematic for the upper and lower crystal filters and see?; the crystal filters are reversed?compared to the schematic.removed one filter? to verify which is used in lsb.found the one used in lsb is marked? model no. 5.645-2.4U? and? the usb mode is wired to? model no. 5.645-2.4L?? are these filters? wired up reversed.do you need the 2.4u I for usb? and the 2.4l for lsb? audio is great in usb but in lower sb very narrow.? ready to replace the lsb filter from steve, but want to ask before replacing the filter. tom? wk6f

???? I've been following this but don't remember exactly what you have done so far.? Its important that the frequency of the carrier oscillator be centered between the two filters. There is a trimmer for this.? The handbook procedure is to unbalance the balanced modulator using the variable resistor and look at the residual carrier on a scope or receiver with s-meter.? A scope is probably better.? The carrier oscillator frequency is them adjusted to get the same amount of residual carrier when the sideband switch is changed from one to the other. This puts the carrier at the same point on the skirts of the two filters.? The modulator is than re-balanced for minimum residual carrier.? After doing this adjustment the quality of the audio should be the same on the two sidebands.?? If it is not one or both of the filters may be bad. Ideally, the receiver used for checking should be one without a sharp IF filter of its own and, again ideally, a receiver with a very wide and symmetrical passband so that the receiver characteristics do not mask the transmitter performance.?
???? According to the graphs in the handbook the two filters have the same shape factor and are symmetrical around their center frequencies but the center frequencies are different.
???? Note that if the transformers in the IF are not correctly adjusted they could give the effect of the sideband filters not being symmetrical.? The instructions in the handbook are reasonably easy to follow and, even if you have already done this, its worth doing again just to make sure.?
???? The filters can probably be checked for response in place but I have not done this.?; Perhaps Garey can suggest a good method.? It IS possible for the filters to go bad? but I would double check everything else before getting replacements.?? I have checked my T4XB many times using both an SP-600-JX and an RCA AR-88 both of which have very wide IF filters and find the quality is exactly the same on the two sidebands. Because of the wide, symmetrical, passband I can switch sidebands without retuning.

????

17986. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 01:28:43 UTC
From: Garey Barrell
Topic: 17982 Message: 17986

The sideband is inverted in the first mixer on all 4 series transmitters because of the LO / IF arrangement. An LSB signal applied to the first mixer comes out as USB at the output frequency.

Garey - K4OAH
Campton Hills, IL

On Jan 2, 2014, at 7:20 PM, Richard Knoppow <1oldlens1@...> wrote:

>
>
>
> -----Original Message-----
> From: bad6qd@...
> Sent: Jan 2, 2014 4:23 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] t4xb crystal filters
>
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>
> reviewing the schematic for the upper and lower crystal filters and see the crystal filters are reversed compared to the schematic.removed one filter to verify which is used in lsb.found the one used in lsb is marked model no. 5.645-2.4U and the
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17987. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 01:59:23 UTC
From: <bad6qd@...>
Topic: 17982 Message: 17987

so the usb filter is used for lower sideband output. tom

17988. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 02:00:58 UTC
From: <bad6qd@...>
Topic: 17982 Message: 17988

will check the if alignment. per gary, the upper sb filter will output the lower sb signal.

17989. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 02:02:59 UTC
From: Steve Wedge
Topic: 17982 Message: 17989

Okay, then if he's having trouble with the ssb filter, in LSB, which filter would be replaced? the one appended "U" or "L"?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, January 02, 2014 8:28 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] t4xb crystal filters

The sideband is inverted in the first mixer on all 4 series transmitters because of the LO / IF arrangement. An LSB signal applied to the first mixer comes out as USB at the output frequency.

Garey - K4OAH
Campton Hills, IL

On Jan 2, 2014, at 7:20 PM, Richard Knoppow <1oldlens1@...> wrote:

-----Original Message-----
From: bad6qd@...
Sent: Jan 2, 2014 4:23 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] t4xb crystal filters

reviewing the schematic for the upper and lower crystal filters and see the crystal filters are reversed compared to the schematic.removed one filter to verify which is used in lsb.found the one used in lsb is marked model no. 5.645-2.4U and the

usb mode is wired to model no. 5.645-2.4L are these filters wired up reversed.do you need the 2.4u I for usb and the 2.4l for lsb? audio is great in usb

but in lower sb very narrow. ready to replace the lsb filter from steve, but want to ask before replacing the filter. tom wk6f

I've been following this but don't remember exactly what you have done so far. Its important that the frequency of the carrier oscillator be centered between the two filters. There is a trimmer for this. The handbook procedure is to unbalance the balanced modulator using the variable resistor and look at the residual carrier on a scope or receiver with s-meter. A scope is probably better. The carrier oscillator frequency is them adjusted to get the same amount of residual carrier when the sideband switch is changed from one to the other. This puts the carrier at the same point on the skirts of the two filters. The modulator is than re-balanced for minimum residual carrier. After doing this adjustment the quality of the audio should be the same on the two sidebands. If it is not one or both of

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17990. RE: t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 13:40:44 UTC
From: <stefan.steger@...>
Topic: 17982 Message: 17990

Maybe the reason is that the 4-Line INVERTS THE IF when mixing up to the TX-Signal. The Output of the premixer is higher than the IF 5.6MHZ. So "LSB" on 5.6MHz is "USB" at the TX-output

Stefan, DL7MAJ

17991. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 14:47:57 UTC
From: Garey Barrell
Topic: 17982 Message: 17991

Correct!

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

bad6qd@... wrote:
>
>
> will check the if alignment. per gary, the upper sb filter will output the lower sb signal.
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17992. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 15:24:55 UTC
From: Garey Barrell
Topic: 17982 Message: 17992

Steve -

Correct. I can never remember the 'rule', and have to figure it out each time. If the 'RF and IF are both below the
LO, then the IF is inverted'. So if we have a USB signal, consisting of 5.645 MHz RF and a single tone of 5.646, (1
kHz tone), and an LO of 12.645 MHz, the difference frequency is going to be 6.999 MHz, or 1 kHz Lower Sideband..

So the 'Sideband Generator' outputs a USB signal, from the USB filtered DSB signal, which is then inverted in the 1st
Mixer to an LSB signal. Since this relationship is maintained on all bands in the
T-4X(any), this holds true for all.

As a comparison, if you have a 9 MHz RF with single tone at 9.001 MHz, (USB) and an LO of 5.000 MHz, (LO 'above' the
IF) the output will be 4.001 MHz, still USB. The sum, 9.001 MHz and 5.000 MHz will also output 14.001 MHz or USB.
However if you turn things around, i.e., 5.001 MHz RF (USB) and LO of 9.000 MHz, the difference becomes 3.999 MHz (LSB)
(inverted). Likewise, for 5.001 MHz (USB) and 9.000 MHz, the sum is 14.001 MHz also USB!

So if EITHER the RF -or- LO is 'above' the IF, it's NOT inverted.

I 'think' that's right!!!! :-)

Anyway, if the T-4X(any) has a problem putting out USB, it's the LSB filter that's at fault!

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

Steve Wedge wrote:
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> *From:* Garey Barrell <mailto:k4oah@...>
> *Sent:* Thursday, January 02, 2014 8:28 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] t4xb crystal filters
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> Garey - K4OAH
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> On Jan 2, 2014, at 7:20 PM, Richard Knoppow <1oldlens1@... <mailto:1oldlens1@...>> wrote:
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>> From: bad6qd@... <mailto:bad6qd@...>
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17993. R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 17:11:05 UTC
From: <dcoffman@...>
Topic: 17993 Message: 17993

I'm in the process of refurbishing an R-4C that I received a couple of weeks ago. One of the previous owners used the thickest grease that I have ever seen, significantly thicker than wheel bearing grease, on the plastic PTO gears, between the dial plates, and on the PTO threaded shaft. The grease, impregnated with dirt, has scarred the dial plates all the way out to the numbers; the grease was even on the blue filter material. After several hours with Simple Green and Dawn dish soap, I was able to remove the bulk of the junk from the plastic parts; the metal parts required Q-Tips and diesel fuel.

The question I have is has anyone successfully removed scratches from the dial plates. I have tried headlight lens restorer, I event attempted to apply some heat to the effected areas in an attempt to melt the scratches and chickened out. I have not made the situation worse but I did not see any real improvement with what I have tried.

My buddy Joe mentioned that someone had put out some feelers for possibly creating some reproductions; has anyone made such a dial?

Thanks,

Doug - N9XTF

17994. Re: [DrakeRadio] R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 17:29:35 UTC
From: Steve Toth
Topic: 17993 Message: 17994

You might try MacQuires(sp?) plastic polish for motorcycle windshields - usually available at auto parts stores, I've used it on my cel phone display window. It has both a polishing cleaner and surface smoothing wax in it.

Also, if the scrathes are not too deep, Sensodyne toothpaste applied with your fingers - works to polish CD's and DVD's, but takes a long time.

-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

On Friday, January 3, 2014 9:11 AM, "dcoffman@..." <dcoffman@...> wrote:

I'm in the process of refurbishing an R-4C that I received a couple of weeks ago. One of the previous owners used the thickest grease that I have ever seen, significantly thicker than wheel bearing grease, on the plastic PTO gears, between the dial plates, and on the PTO threaded shaft. The grease, impregnated with dirt, has scarred the dial plates all the way out to the numbers; the grease was even on the blue filter material. After several hours with Simple Green and Dawn dish soap, I was able to remove the bulk of the junk from the plastic parts; the metal parts required Q-Tips and diesel fuel.

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Thanks,

Doug - N9XTF

17995. Re: [DrakeRadio] R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 17:44:21 UTC
From: wes bolin
Topic: 17993 Message: 17995

I have successfully used the Novus polishes available from Antique Electronic Supply. For shallow scratches.

I have also used toothpaste. In astronomy, rouge and/or cerium oxide is used for fine polish, with coarse grit leading up to the final stage. I have had to use rubbing compound on some deep scratches to remove them, then go to more fine polishes. If too much surface is removde around the deep scratch, then a slight distortion will remain after polish....but to me this "goes away" after time and I don't notice it.

In all cases, Doug, it required a good bit of elbow power. Hope some of this helps.

Wes

On Fri, Jan 3, 2014 at 11:11 AM, <dcoffman@...> wrote:

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> weeks ago. One of the previous owners used the thickest grease that I have
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> Thanks,
>
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> Doug - N9XTF
>

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>

17996. Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 19:15:26 UTC
From: <cavemaaan@...>
Topic: 17996 Message: 17996

Hey All :)

I'm hoping someone here can help me even though this is not directly Drake related. I'm trying to get a small power transformer rewound as it has an issue and will blow a fuse after running for around eight seconds by itself. This is the power tranny for an older Wavtek SSI-3000 radio service monitor. The tranny is impossible to replace with new due to the HV winding for a modulation CRT....trust me I've looked for months once I obtained the basic specs of the tranny.

I thought I had found a guy, Gary Brown from "Transformer Rewinding Service" in Orono, ME, but no one is responding to email from four weeks ago and when I tried to call yesterday, the phone number listed is no longer valid.

It seems he was the only small tranny repair person I could find - everything else that comes up on Google search is a large-to-huge electrical grid transformer repair place for multi-kilovolt trannies.

Does anyone know of anyone who rewinds without leaving me broke?

Thanks,
Dan Gibbs
KD8SSS
Swartz Creek, MI

17997. Re: [DrakeRadio] Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 19:24:14 UTC
From: Al Parker
Topic: 17996 Message: 17997

Hi Dan,
Gary & I corresponded in Nov., his email is XFRMRS@... He
rewound a plate xfmr I sent him then. Don't have his fone nr, but can
get it from a mutual friend.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/3/2014 2:15 PM, cavemaaan@... wrote:
> Hey All :)
>

> I thought I had found a guy, Gary Brown from "Transformer Rewinding
> Service" in Orono, ME, but no one is responding to email from four weeks
> ago and when I tried to call yesterday, the phone number listed is no
> longer valid.
>

17998. Re: [DrakeRadio] Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 19:44:16 UTC
From: Dan Galligan
Topic: 17996 Message: 17998

Dan,
I have dealt with Gary on a few occasions, and feel safe in relating this observation. He is not "web-centric". While I imagine that business he gets through his website, is a significant portion of his business, I don't think he is one to check his email several times a day, or even daily. In my experience, it has sometimes taken him several days, to answer. That, and given the time of year, people's tendency to travel, at this time of year, and the travel delays, brought on by the current winter storm, gripping the northeast, I'd give it a few more days, to hear back. He might be stuck at a Florida airport, awaiting the next flight available to Maine. Or, he could be stuck at the Bangor airport, unable to traverse the roads back to Orono.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

> On Jan 3, 2014, at 13:15, cavemaaan@... wrote:
>
>
>
> Hey All :)
>
> I'm hoping someone here can help me even though this is not directly Drake related. I'm trying to get a small power transformer rewound as it has an issue and will blow a fuse after running for around eight seconds by itself. This is the power tranny for an older Wavtek SSI-3000 radio service monitor. The tranny is impossible to replace with new due to the HV winding for a modulation CRT....trust me I've looked for months once I obtained the basic specs of the tranny.
>
> I thought I had found a guy, Gary Brown from "Transformer Rewinding Service" in Orono, ME, but no one is responding to email from four weeks ago and when I tried to call yesterday, the phone number listed is no longer valid.
>
> It seems he was the only small tranny repair person I could find - everything else that comes up on Google search is a large-to-huge electrical grid transformer repair place for multi-kilovolt trannies.
>
> Does anyone know of anyone who rewinds without leaving me broke?
>

> Thanks,
> Dan Gibbs
> KD8SSS
> Swartz Creek, MI
>
>
>
>
>

17999. Re: [DrakeRadio] Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 19:47:33 UTC
From: Dan Galligan
Topic: 17996 Message: 17999

BTW, it's nice to have a group, that is relaxed, yet helpful enough, that nobody gets their wrist slapped, because a question is asked that is not about the particular brand, that is the focus of the reflector. Yet, they still get answers to their question.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

> On Jan 3, 2014, at 13:15, cavemaaan@... wrote:
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>
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> Hey All :)
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>
> Does anyone know of anyone who rewinds without leaving me broke?
>
> Thanks,
> Dan Gibbs
> KD8SSS
> Swartz Creek, MI
>
>
>

>
>

18000. Re: [DrakeRadio] Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 20:11:20 UTC
From: Whitebear1122
Topic: 17996 Message: 18000

Keep working the Gary Brown lead. His work is first rate and of highest quality! He rewound my Collins 32V3 LV transformer and did a fabulous job. I don't know of anyone else doing it. 73, Scott WA9WFA
On Jan 3, 2014, at 1:15 PM, cavemaaan@... wrote:
>
> Hey All :)
> I'm hoping someone here can help me even though this is not directly Drake related. I'm trying to get a small power transformer rewound as it has an issue and will blow a fuse after running for around eight seconds by itself. This is the power tranny for an older Wavtek SSI-3000 radio service monitor. The tranny is impossible to replace with new due to the HV winding for a modulation CRT....trust me I've looked for months once I obtained the basic specs of the tranny.
>
> I thought I had found a guy, Gary Brown from "Transformer Rewinding Service" in Orono, ME, but no one is responding to email from four weeks ago and when I tried to call yesterday, the phone number listed is no longer valid.
>
> It seems he was the only small tranny repair person I could find - everything else that comes up on Google search is a large-to-huge electrical grid transformer repair place for multi-kilovolt trannies.
>
> Does anyone know of anyone who rewinds without leaving me broke?
>
> Thanks,
> Dan Gibbs
> KD8SSS
> Swartz Creek, MI

18001. Re: R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 20:57:42 UTC
From: Charles Rippel
Topic: 17993 Message: 18001

Doug,

There is a product out there called "Blue Magic" which works wonders on such things. I use it regularly when restoring R390A's to remove the scratches and yellowing from the odometer readout plastic dial "glass" and it also cleans the stainless steel front panel handles. Its also done wonders to remove any trace of scratches from the "crystal" of my EDC wrist watch.

I use it with a buffer wheel on a drill press, set to turn about 600 RPM. Wouldn't go much faster with it.

You may be able to find it locally, but know that while Blue Magic make a number of products, THIS is what you want:

http://www.amazon.com/gp/product/B000ALCOCQ/ref=oh_details_o04_s00_i01?ie=UTF8&psc=1

It also works wonders on cleaning up Drake and "S" Line knobs, removing the oxidization then polishing the plastic.

If you want, mail me off list, you can send me the dials and I'll do my best to take the scratches out.

73
Chuck Rippel - K8HU
ex WA4HHG

On Fri, Jan 3, 2014 at 12:11 PM, <dcoffman@...> wrote:

>
> The question I have is has anyone successfully removed scratches from the
> dial plates. I have tried headlight lens restorer, I event attempted to
> apply some heat to the effected areas in an attempt to melt the scratches
> and chickened out. I have not made the situation worse but I did not see
> any real improvement with what I have tried.
>
>
> My buddy Joe mentioned that someone had put out some feelers for possibly
> creating some reproductions; has anyone made such a dial?
>
>
> Thanks,
>
>
> Doug - N9XTF
>
>

>

18002. RE: [DrakeRadio] Re: R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 22:52:35 UTC
From: Doug Coffman
Topic: 17993 Message: 18002

Charles,

I did not see your email address to reply to directly.

Strangely enough, for what reason I do not know, I had a fresh bottle of Blue Magic in my garage. I had tried this product before the post to the group however; I tried it by hand for a couple of hours and did not touch the scratches.

I just finished a couple of hours on your approach. I put a buffing pad on my hand held drill and set it for about 600 RPM; half of full speed. I gently went over both dials, front and back, and successfully removed all of the deep scratches. This however left a pretty significant haze. I then made up a solution of dish soap and water and continuiously soaked the buffing pad while buffing the discs again. I cut the haze down by ¾, they look very good but there is still a haze present. I have tried hand buffing with tooth paste but just can□t quite get rid of the haze. I also tried hand buffing the discs with the Blue Magic.

If I could keep the discs a little damp they look brand new!!!

Doug □ N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Charles Rippel
Sent: Friday, January 3, 2014 3:58 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: R-4C Dial Repair

Doug,

There is a product out there called "Blue Magic" which works wonders on such things. I use it regularly when restoring R390A's to remove the scratches and yellowing from the odometer readout plastic dial "glass" and it also cleans the stainless steel front panel handles. Its also done wonders to remove any trace of scratches from the "crystal" of my EDC wrist watch.

I use it with a buffer wheel on a drill press, set to turn about 600 RPM. Wouldn't go much faster with it.

You may be able to find it locally, but know that while Blue Magic make a number of products, THIS is what you want:

http://www.amazon.com/gp/product/B000ALCOCQ/ref=oh_details_o04_s00_i01?ie=UTF8
<http://www.amazon.com/gp/product/B000ALCOCQ/ref=oh_details_o04_s00_i01?ie=UTF8&psc=1> &psc=1

It also works wonders on cleaning up Drake and "S" Line knobs, removing the oxidization then polishing the plastic.

If you want, mail me off list, you can send me the dials and I'll do my best to take the scratches out.

73

Chuck Rippel - K8HU

ex WA4HHG

On Fri, Jan 3, 2014 at 12:11 PM, <dcoffman@...
<mailto:dcoffman@pdswireless.com> > wrote:

The question I have is has anyone successfully removed scratches from the dial plates. I have tried headlight lens restorer, I event attempted to apply some heat to the effected areas in an attempt to melt the scratches and chickened out. I have not made the situation worse but I did not see any real improvement with what I have tried.

My buddy Joe mentioned that someone had put out some feelers for possibly creating some reproductions; has anyone made such a dial?

Thanks,

Doug - N9XTF

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18003. Re: [DrakeRadio] t4xb crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 23:13:34 UTC
From: Garey Barrell
Topic: 17982 Message: 18003

Yes, the filters are installed correctly. See my earlier message.
If you have an audio oscillator you can apply it to the MIC input. Then in SSB sweep the audio from 100 Hz to 3500 Hz. The output should rise from zero at 100 Hz to maximum at about 400 Hz, stay fairly level until about 2800 Hz, then fall rapidly to zero again. If the output drops significantly in between those two frequencies, you have A bad filter. Repeat on both sidebands.

73, Garey - K4OAH
Campton Hills, IL

> On Jan 2, 2014, at 6:23 PM, <bad6qd@...> wrote:
>
>
>
> reviewing the schematic for the upper and lower crystal filters and see the crystal filters are reversed compared to the schematic.removed one filter to verify which is used in lsb.found the one used in lsb is marked model no. 5.645-2.4U and the
>
> usb mode is wired to model no. 5.645-2.4L are these filters wired up reversed.do you need the 2.4u I for usb and the 2.4l for lsb? audio is great in usb
>
> but in lower sb very narrow. ready to replace the lsb filter from steve, but want to ask before replacing the filter. tom wk6f
>
>
>
>

18004. AC-3 240 mains conversion?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 23:11:10 UTC
From: <vk2sja@...>
Topic: 18004 Message: 18004

Hi All,

Name is Steve, VK2SJA QTH Nowra NSW Australia.

First post to the group but I've been lurking for a few weeks. Reading and learning lots!

I am starting the process of restoring my recently acquired TR-4C and a AC-3 PSU (from separate sources). I ordered the ES4AC-3 upgrade kit and this morning started examining the AC-3 circuit. Don't like what I'm seeing.

The AC-3 manual states (and circuit diagram shows) that the PSU can be used on either 110v or 240v AC. For 110v mains the primary is two windings in parrallel. For 240v mains (which we use here in VK) you wire the same two windings in series.

Problem. I only appear to have *two* primary fly-leads and not four. Manual shows Black+Black/White as one priimary and then Black/Red+Black/Green as the second primary winding. I was expecting to find all four of these wires going to a terminal strip. But what I have is two white wires only (inside black cloth insulation).

The AC-3 power supply is S/N 8209 and the transformer has A-10180 3946409 written on it.

Questions:

Did Drake manufacture a number of power supplies with a transformer suitable only for the domestic 110v market?

If I cut away the most outer layer of winding insulation am I going to find the two priimary windings hidden inside?

Does anyone have a AC-3 or AC-4 which can be modified for 240v mains operation (Not working is fine. The transformer is the only important thing) that they can sell me?

73, Steve

18005. RE: Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 23:31:11 UTC
From: <gregory.beat@...>
Topic: 17996 Message: 18005

Dan -

Have you called Hayboer Transformers in Grand Haven, MI ???

http://www.heyboertransformers.com/index.shtml
17382 Hayes St.
Grand Haven, Michigan 49417
Phone: (616) 842-5830
Fax: (616) 842-3731
Send E-mail http://www.heyboertransformers.com/contact.shtml

18006. Re: [DrakeRadio] Re: R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 23:57:16 UTC
From: M K
Topic: 17993 Message: 18006

I've not worked with Drake dials, but I've used toothpaste to polish clear plastic LCD lenses, as well as other plastic parts.
I've had no problem getting the clear stuff so close to perfect, that you would have to nearly stare at it to see a problem.
So I rather doubt that you should have a problem getting the haze off those dials.
You might want to try a different toothpaste(they DO vary).
Generally, mixing it with a bit of water is helpful(the paste toothpastes generally need more water than the gel toothpastes).
Try using folded paper toweling or cloth to apply and buff it in.
Then try a piece of DRY paper for the final polish-first brown, then white.

On Fri, Jan 3, 2014 at 5:52 PM, Doug Coffman <dcoffman@...>wrote:

>
>
> Charles,
>
>
>
> I did not see your email address to reply to directly.
>
>
>
> Strangely enough, for what reason I do not know, I had a fresh bottle of
> Blue Magic in my garage. I had tried this product before the post to the
> group however; I tried it by hand for a couple of hours and did not touch
> the scratches.
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> I just finished a couple of hours on your approach. I put a buffing pad
> on my hand held drill and set it for about 600 RPM; half of full speed. I
> gently went over both dials, front and back, and successfully removed all
> of the deep scratches. This however left a pretty significant haze. I
> then made up a solution of dish soap and water and continuiously soaked the
> buffing pad while buffing the discs again. I cut the haze down by ¾, they
> look very good but there is still a haze present. I have tried hand
> buffing with tooth paste but just can’t quite get rid of the haze. I also
> tried hand buffing the discs with the Blue Magic.
>
>
>
> If I could keep the discs a little damp they look brand new!!!
>

>
>
> Doug – N9XTF
>
>
>
> *From:* DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On
> Behalf Of *Charles Rippel
> *Sent:* Friday, January 3, 2014 3:58 PM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* [DrakeRadio] Re: R-4C Dial Repair
>
>
>
>
>
>
> Doug,
>
> There is a product out there called "Blue Magic" which works wonders on
> such things. I use it regularly when restoring R390A's to remove the
> scratches and yellowing from the odometer readout plastic dial "glass" and
> it also cleans the stainless steel front panel handles. Its also done
> wonders to remove any trace of scratches from the "crystal" of my EDC wrist
> watch.
>
> I use it with a buffer wheel on a drill press, set to turn about 600
> RPM. Wouldn't go much faster with it.
>
> You may be able to find it locally, but know that while Blue Magic make a
> number of products, THIS is what you want:
>
>
> http://www.amazon.com/gp/product/B000ALCOCQ/ref=oh_details_o04_s00_i01?ie=UTF8&psc=1
>
> It also works wonders on cleaning up Drake and "S" Line knobs, removing
> the oxidization then polishing the plastic.
>
>
>
> If you want, mail me off list, you can send me the dials and I'll do my
> best to take the scratches out.
>
> 73
>
> Chuck Rippel - K8HU
>
> ex WA4HHG
>
>
>

> On Fri, Jan 3, 2014 at 12:11 PM, <dcoffman@pdswireless.com> wrote:
>
>
>
> The question I have is has anyone successfully removed scratches from the
> dial plates. I have tried headlight lens restorer, I event attempted to
> apply some heat to the effected areas in an attempt to melt the scratches
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> My buddy Joe mentioned that someone had put out some feelers for possibly
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> Thanks,
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>
> Doug - N9XTF
>
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> ------------------------------
> PDSWireless
> Quick and Simple Internet Access
> Get it now! <http://www.pdswireless.com>
>
>
>
>

18007. Re: [DrakeRadio] RE: Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-03 23:52:54 UTC
From: H. Bruce Smith
Topic: 17996 Message: 18007

Gary's phone number in Orno Maine is 207 942-5745, he does good work.....
73 Bruce VE1ANH

On Friday, January 3, 2014 7:31:13 PM, "gregory.beat@..." <gregory.beat@...> wrote:

Dan -

Have you called Hayboer Transformers in Grand Haven, MI ???

17382 Hayes St.
Grand Haven, Michigan 49417
Phone: (616) 842-5830
Fax: (616) 842-3731
Send E-mail

18008. Re: [DrakeRadio] Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 00:15:51 UTC
From: Jim Harris
Topic: 17996 Message: 18008

I think that Hammond in Ontario Canada can do that or at least they used to. They rewound a L4B transformer many years ago. They also can make customs transformers etc. Look here and read the FAQ's.

http://www.hammondmfg.com/

On Fri, Jan 3, 2014 at 3:15 PM, <cavemaaan@...> wrote:

>
>
> Hey All :)
>
> I'm hoping someone here can help me even though this is not directly Drake
> related. I'm trying to get a small power transformer rewound as it has an
> issue and will blow a fuse after running for around eight seconds by
> itself. This is the power tranny for an older Wavtek SSI-3000 radio service
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> basic specs of the tranny.
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> I thought I had found a guy, Gary Brown from "Transformer Rewinding
> Service" in Orono, ME, but no one is responding to email from four weeks
> ago and when I tried to call yesterday, the phone number listed is no
> longer valid.
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> It seems he was the only small tranny repair person I could find -
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> electrical grid transformer repair place for multi-kilovolt trannies.
>
> Does anyone know of anyone who rewinds without leaving me broke?
>
> Thanks,
> Dan Gibbs
> KD8SSS
> Swartz Creek, MI
>
>
>
>

18009. Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 00:48:44 UTC
From: <lee.hiers@...>
Topic: 18009 Message: 18009

Hi all,

I'm working on building an accessory for my R-4 receiver and would like to match the front panel paint colors as closely as possible. I looked through the old messages, but couldn't find anything....not that it's not there!

Does anyone have any specific recommendations (preferably in rattle-cans) for the two grays on the 4-line Drakes?

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

18010. Re: [DrakeRadio] Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 01:30:43 UTC
From: bobbyb@frontiernet.net
Topic: 18009 Message: 18010

I have been using testors for touch up ...
[ez for me since I stock / sell it....]

http://www.testors.com/

-- Bobby BHangar 11www.hangar11.com845-926-1959

From: "lee.hiers@..." <lee.hiers@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 3, 2014 7:48 PM
Subject: [DrakeRadio] Paint Colors

Hi all,

I'm working on building an accessory for my R-4 receiver and would like to match the front panel paint colors as closely as possible. I looked through the old messages, but couldn't find anything....not that it's not there!

Does anyone have any specific recommendations (preferably in rattle-cans) for the two grays on the 4-line Drakes?

73 de Lee
--
Lee Hiers, AA4GA
http://www.aa4ga.com/

18011. Re: [DrakeRadio] Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 01:35:00 UTC
From: Lee Hiers
Topic: 18009 Message: 18011

On Fri, Jan 3, 2014 at 8:30 PM, bobbyb@... <
bobbyb@...> wrote:

I have been using testors for touch up ...
> [ez for me since I stock / sell it....]
>

Which colors for the Drake front panel? Are you airbrushing, or are these
available in cans?

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18012. Re: [DrakeRadio] Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 01:38:13 UTC
From: bobbyb@frontiernet.net
Topic: 18009 Message: 18012

BTW airbrushing allows for closer color matching and closer matching finishes.

Bobby B
Hangar 11
http://www.hangar11.com/

845-926-1959

From: "lee.hiers@gmail.com" <lee.hiers@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 3, 2014 7:48 PM
Subject: [DrakeRadio] Paint Colors

Hi all,

I'm working on building an accessory for my R-4 receiver and would like to match the front panel paint colors as closely as possible. I looked through the old messages, but couldn't find anything....not that it's not there!

Does anyone have any specific recommendations (preferably in rattle-cans) for the two grays on the 4-line Drakes?

73 de Lee
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Lee Hiers, AA4GA
http://www.aa4ga.com/

18013. t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 02:16:23 UTC
From: <bad6qd@...>
Topic: 18013 Message: 18013

question to all.when say operating on lower ssb @ 7.150 or any freq. and just change to UPPER SSB MODE AND NOT CHANGE FREQUENCE. THE FREQ. WILL SHIFT FROM 7.150,IS THIS NORMAL ?need to align vfo to 7.150 OR SOMETHING OFF? tom wk6f

18014. Re: [DrakeRadio] Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 02:39:47 UTC
From: Lee Hiers
Topic: 18009 Message: 18014

On Fri, Jan 3, 2014 at 8:38 PM, bobbyb@... <
bobbyb@...> wrote:

BTW airbrushing allows for closer color matching and closer
> matching finishes.
>

Thanks - I understand that, but I don't currently have access to an
airbrush.

Perhaps I should have phrased my question differently - instead of "as
close as possible" I should have said "as close as practical, but
relatively easy to implement using spray paints from Home Depot, Menards,
etc." ;-)

I'm not looking to refinish to an exact match, but to get fairly close...

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18015. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 02:40:50 UTC
From: bobbyb@frontiernet.net
Topic: 18013 Message: 18015

http://en.wikipedia.org/wiki/Single-sideband_modulation

Illustration of the spectrum of AM and SSB signals.
The lower side band (LSB) spectrum is inverted compared
to the baseband. As an example, a 2 kHz audio baseband
signal modulated onto a 5 MHz carrier will produce a
frequency of 5.002 MHz if upper side band (USB) is used
or 4.998 MHz if LSB is used.

-- Bobby BHangar 11www.hangar11.com845-926-1959

From: "bad6qd@..." <bad6qd@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 3, 2014 9:16 PM
Subject: [DrakeRadio] t4xb upper and lower ssb operation

question to all.when say operating on lower ssb @ 7.150 or any freq. and just change to UPPER SSB MODE AND NOT CHANGE FREQUENCE. THE FREQ. WILL SHIFT FROM 7.150,IS THIS NORMAL ?need to align vfo to 7.150 OR SOMETHING OFF? tom wk6f

18016. Re: [DrakeRadio] Paint Colors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 02:47:56 UTC
From: bobbyb@frontiernet.net
Topic: 18009 Message: 18016

Lee

acknowledged......

visit http://www.testors.com/ view the colors they have with the onscreen color charts , many are available in 3 ounce spray cans.

pick one or more and email me your selection.

I am a testors retailer, I will send you a quote with the HAM discount applied and ship to your door.

Bobby B
Hangar 11
http://www.hangar11.com/
845-926-1959

From: Lee Hiers <lee.hiers@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 3, 2014 9:39 PM
Subject: Re: [DrakeRadio] Paint Colors

On Fri, Jan 3, 2014 at 8:38 PM, bobbyb@frontiernet.net <bobbyb@...> wrote:

BTW airbrushing allows for closer color matching and closer matching finishes.
>

Thanks - I understand that, but I don't currently have access to an airbrush.

Perhaps I should have phrased my question differently - instead of "as close as possible" I should have said "as close as practical, but relatively easy to implement using spray paints from Home Depot, Menards, etc." ;-)

I'm not looking to refinish to an exact match, but to get fairly close...

73 de Lee
--
Lee Hiers, AA4GA
http://www.aa4ga.com/

Submit your QRP DXCC totals to http://www.qrpdx.com/!

18017. RE: Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 02:50:19 UTC
From: <k6ctw@...>
Topic: 17996 Message: 18017

Dan,

I've also had excellent results from the Transformer Rewinding Service. A link to his "Contact Us" page is:

http://members.tripod.com/tubes_tubes_tubes/transformerrewindingservice/id2.html

Good luck and have a great weekend.

73 - ken, k6ctw

18018. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 04:38:56 UTC
From: Jim Shorney
Topic: 18013 Message: 18018

If I understand what you are asking the answer is "it depends on the design of the radio". Some radios will shift carrier frequency dial calibration when you change modes, others will read true. Rigs that use a single crystal filter for SSB will change dial calibration when switching modes unless steps are taken elsewhere in the mixing scheme to compensate. Look at some of the older Kenwood and Yaesu rigs, you will see fiducial markings for each sideband on the bezel. Rigs that use separate filters for USB and LSB *should* maintain a true reading when changing modes.

73

-Jim
NU0C

On 03 Jan 2014 18:16:23 -0800, bad6qd@... wrote:

>question to all.when say operating on lower ssb @ 7.150 or any freq. and just change to UPPER SSB MODE AND NOT CHANGE FREQUENCE. THE FREQ. WILL SHIFT FROM 7.150,IS THIS NORMAL ?need to align vfo to 7.150 OR SOMETHING OFF? tom wk6f

--
There are 10 types of people in this world -- those who understand binary
and those who don't.

18019. t4xb drake usb and lsb mode changefreq.setting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 04:52:40 UTC
From: <bad6qd@...>
Topic: 18019 Message: 18019

when changing from lower ssb to upper ssb and not changing the vfo frequency, the two modes are off from the set vfo freq.will need to move the vfo to compensate the operating freq used. is this normal for a drake t4xb?

18020. RE: Transformer Rewinding

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 05:18:30 UTC
From: <cavemaaan@...>
Topic: 17996 Message: 18020

Hey All....Gary contacted me via email today while I was at work (second shift).

Thanks for all of the replies....they are greatly appreciated :)

I've known of Hammond Mfg for twenty years now but never knew the did rewinding - I just figured that they could do a one-off custom, but it would cost waaay too much just like Northlake Eng told me (they made the original and said $1,000 for a one-off)

I have known of Heyboer for about seven years now - Alden (nice guy) helped by selling me some thermal fuses to repair the power tranny in my older Fender Twin guitar amp. I tried to call him today but they were closed by the time I tried to call.

Thanks for the help - I know it wasn't directly about Drake, but I can use it to check my Drakes when it's fixed :)

Dan Gibbs

KD8SSS
Swartz Creek, MI

18021. t4xb upper/lower ssb modes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 05:18:30 UTC
From: <bad6qd@...>
Topic: 18021 Message: 18021

performed carrier osc,filter match,and balancd mod. alignment now see no change with vfo setting and audio quality in lower and upper ssb modes. listened with a yaesu ft1000mpk5 with wide receive in both ssb modes.sounds good. I believe the crystal filters are good on lower side band. need to make a few contacts. Tom WK6F let everyone know what I find. tom wk6f

18022. PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 05:40:26 UTC
From: Jim Shorney
Topic: 18022 Message: 18022

With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I can now supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should work in the R-7 as well). This is using the 74S387 device, for which I found a good supply of 1994-dated NOS chips at a reasonable cost.

I have made a couple of changes to the original Drake code:

WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For most of us I imagine this will be enhanced uselessness, but what it will do is allow an unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not need the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost allband" mod, or my "better allband transmit mod" to use the WARC bands.

60 Meter transmit will also be possible, but a mod to the Digital Control PCB will still be needed.

The unused third bit has been programmed to toggle on the three lowest band segments for 0.0-1.5 MHz. I figure that clever folks might find this useful to switch external VLF accessories. This bit can be custom programmed to switch on any band segment or segments by request if someone comes up with another interesting idea to make use of it.

The first sample off the burner has been tested in my spare TR-7 and works as expected.

For those of you (and I know who you are) who were involved in the recent conversation about U9003 that sparked this adventure and who expressed an interest in acquiring PROMs for your own needs, please contact me OFF-LIST if you are still interested. I will offer a special one-time low price for your personal use or spares only. That is, I don't want to see them showing up for sale on eBay or other places. After that, capitalism will kick in and I will be asking a fair price in hopes of at least eventually recovering what I have invested in this project.

(Garey, stop reading now)

I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin IC sockets available if you want one with your PROM. These are the non-gold version.

Again, contact me OFF-LIST.

73

-Jim
NU0C
--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18023. t4xblower/upper mode operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 06:25:33 UTC
From: <bad6qd@...>
Topic: 18023 Message: 18023

made good contacts in Oregon on 3.813 lsb with good signal reports and audio
sounds good.still have more highs on lsb but good communication audio.upper sb has more
dynamic range than lsb. really need to check that usb crystal filter.
otherwise is up and running. at the same time the r4b receiver developed bad ac hum and I
jumped the two open filters with modern caps. all is good. hi hi tom wk6f
need to get back with steve ..

18024. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 12:51:23 UTC
From: David Stinson
Topic: 18022 Message: 18024

Thank you for this effort, Jim!
Whatcha need to get for a couple?

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, January 03, 2014 11:40 PM
Subject: [DrakeRadio] PROMmania! U9003 cracked!

> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I
> can now
> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should
> work
> in the R-7 as well). This is using the 74S387 device, for which I found a
> good
> supply of 1994-dated NOS chips at a reasonable cost.
>
> I have made a couple of changes to the original Drake code:
>
> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For
> most of
> us I imagine this will be enhanced uselessness, but what it will do is
> allow an
> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not
> need
> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>
> 60 Meter transmit will also be possible, but a mod to the Digital Control
> PCB
> will still be needed.
>
> The unused third bit has been programmed to toggle on the three lowest
> band
> segments for 0.0-1.5 MHz. I figure that clever folks might find this
> useful to
> switch external VLF accessories. This bit can be custom programmed to
> switch on
> any band segment or segments by request if someone comes up with another
> interesting idea to make use of it.
>
> The first sample off the burner has been tested in my spare TR-7 and works
> as
> expected.

>
> For those of you (and I know who you are) who were involved in the recent
> conversation about U9003 that sparked this adventure and who expressed an
> interest in acquiring PROMs for your own needs, please contact me OFF-LIST
> if
> you are still interested. I will offer a special one-time low price for
> your
> personal use or spares only. That is, I don't want to see them showing up
> for
> sale on eBay or other places. After that, capitalism will kick in and I
> will be
> asking a fair price in hopes of at least eventually recovering what I have
> invested in this project.
>
> (Garey, stop reading now)
>
> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin
> IC
> sockets available if you want one with your PROM. These are the non-gold
> version.
>
> Again, contact me OFF-LIST.
>
> 73
>
> -Jim
> NU0C
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

18025. Re: [DrakeRadio] Re: R-4C Dial Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 13:26:44 UTC
From: Charles Rippel
Topic: 17993 Message: 18025

Glad you are seeing some progress, Doug. I've never had any hazing issues
but there may be differences in plastic formulations, etc..... Maybe now
is the time to try some tooth paste in a small spot and see what happens.

When you get this dial issue behind you, try that buffing wheel/Blue Magic
combo on the knobs. Its amazing.

Sometimes getting the cosmetic issues cured is 2X as hard as the
electronics.

Best
Chuck
K8HU

On Fri, Jan 3, 2014 at 5:52 PM, Doug Coffman <dcoffman@...>wrote:

>
>
> Charles,
>
>
>
> I did not see your email address to reply to directly.
>
>
>
> Strangely enough, for what reason I do not know, I had a fresh bottle of
> Blue Magic in my garage. I had tried this product before the post to the
> group however; I tried it by hand for a couple of hours and did not touch
> the scratches.
>
>
>
> I just finished a couple of hours on your approach. I put a buffing pad
> on my hand held drill and set it for about 600 RPM; half of full speed. I
> gently went over both dials, front and back, and successfully removed all
> of the deep scratches. This however left a pretty significant haze. I
> then made up a solution of dish soap and water and continuiously soaked the
> buffing pad while buffing the discs again. I cut the haze down by ¾, they
> look very good but there is still a haze present. I have tried hand
> buffing with tooth paste but just can’t quite get rid of the haze. I also
> tried hand buffing the discs with the Blue Magic.
>
>
>
> If I could keep the discs a little damp they look brand new!!!

>
>
>
> Doug – N9XTF
>
>
>
> If you want, mail me off list, you can send me the dials and I'll do my
> best to take the scratches out.
>
> 73
>
> Chuck Rippel - K8HU
>
> ex WA4HHG
>
>

18026. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 15:18:07 UTC
From: Garey Barrell
Topic: 18013 Message: 18026

Tom -

Changing sidebands on _SSB_ does NOT change the (suppressed) Carrier frequency. What may be confusing you is that in
TUNE mode, the transmitter applies an approximately 1 kHz tone (think whistling into the microphone), and the output
frequency of the transmitter is then 1 kHz above (or below) 7.150 depending upon whether you are in USB or LSB. But the
(suppressed) Carrier frequency does NOT change.

In _CW_ mode however, the Carrier Oscillator IS shifted approximately 1 kHz UP, into the passband of the LSB filter
(indicated by the "X" associated with those switches), and the Balanced Mixer is unbalanced so that the CO signal can
pass through with minimal attenuation to be amplified as the OUTPUT signal. This is why the OUTPUT frequency of the
transmitter is about 1 kHz BELOW the dial frequency indicated.

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

bad6qd@... wrote:
>
>
> question to all.when say operating on lower ssb @ 7.150 or any freq. and just change to UPPER SSB MODE AND NOT
> CHANGE FREQUENCE. THE FREQ. WILL SHIFT FROM 7.150,IS THIS NORMAL ?need to align vfo to 7.150 OR SOMETHING OFF?
> tom wk6f
>
>

18027. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 19:47:05 UTC
From: <bad6qd@...>
Topic: 18013 Message: 18027

now is see.I made a alignment per manual and found alignment wasn't right on.working good now, but the audio on lsb has more highs in the audio, good audio communications audio for dx etc.on upper sb sounds better with some lows. nee to test the crystal filters as you described using a audio generator,which I do not have at this time. tom wk6f

18028. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 21:01:11 UTC
From: Garey Barrell
Topic: 18013 Message: 18028

Tom -

Think of the Car Osc and filters as the letter "M". The Car Osc should be centered in the 'bottom' of the V in the middle. The two peaks of the M represent the two sideband filter bandwidths. The two peaks actually have a flat top, and visualize them as 0 Hz at the bottom of the V and say 4 kHz on the outer ends of the two peaks.

So... if the Car Osc is exactly centered, each side(band) will have a flat top approximately 2.4 kHz wide, say 400 to 2800 Hz. If the Car Osc is OFF center by 100 Hz, then one flat top will be from 500 Hz to 2900 Hz, and the other side will be from 300 Hz to 2600 Hz. This will result in one side sounding 'bassy' or muffled, and the other side will sound 'bright' or hissy.

Garey - K4OAH
Campton Hills, IL

On Jan 4, 2014, at 1:47 PM, <bad6qd@...> wrote:

>
>
> now is see.I made a alignment per manual and found alignment wasn't right on.working good now, but the audio on lsb has more highs in the audio, good audio communications audio for dx etc.on upper sb sounds better with some lows. nee to test the crystal filters as you described using a audio generator,which I do not have at this time. tom wk6f
>
>
>
>

18029. Re: [DrakeRadio] t4xb upper and lower ssb operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 21:20:35 UTC
From: Richard Knoppow
Topic: 18013 Message: 18029

----- Original Message -----
From: <bad6qd@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, January 04, 2014 11:47 AM
Subject: Re: [DrakeRadio] t4xb upper and lower ssb operation

> now is see.I made a alignment per manual and found
> alignment wasn't right on.working good now, but the audio
> on lsb has more highs in the audio, good audio
> communications audio for dx etc.on upper sb sounds better
> with some lows. nee to test the crystal filters as you
> described using a audio generator,which I do not have at
> this time. tom wk6f
>
Before going after the filters make sure the carrier
oscillator is centered correctly. The book gives a method
where the residual carrier is made equal for both sidebands.
Actually its looking at the upper skirt of one filter and
the lower skirt of the other filter. It might be
interesting to vary the carrier oscillator a little while
listening to a comparison of the sidebands to see if the
audio response can be made the same on both. It may be that
one filter has somewhat different pass band response than
the other. If considerable it means one filter is bad. Go
over this adjustment procedure again very carefully. It
can't hurt and you may discover the filters are OK.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18030. Re: [DrakeRadio] t4xblower/upper mode operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 22:48:23 UTC
From: Steve Wedge
Topic: 18023 Message: 18030

You rang?

Make sure that you completely disconnect the old filter caps in that receiver! With age, they have a tendency to eventually short out, and you certainly don't want to have to replace a transformer!

Email off-line re the filter thingy...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: bad6qd@...
Sent: Saturday, January 04, 2014 1:25 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] t4xblower/upper mode operation

made good contacts in Oregon on 3.813 lsb with good signal reports and audio

sounds good.still have more highs on lsb but good communication audio.upper sb has more dynamic range than lsb. really need to check that usb crystal filter.

otherwise is up and running. at the same time the r4b receiver developed bad ac hum and I jumped the two open filters with modern caps. all is good. hi hi tom wk6f

need to get back with steve ..

18031. Re: [DrakeRadio] t4xblower/upper mode operation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-04 22:57:47 UTC
From: <bad6qd@...>
Topic: 18023 Message: 18031

thanks for reminding me steve, will do.

18032. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-05 19:13:51 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 18032

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

18033. Drake Technical Net Time Change

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-06 14:09:08 UTC
From: Mark Gilger
Topic: 18033 Message: 18033

Since the 40 meter technical net was created many years ago, the Sunday start time has always 20:00 GMT . Due to recent problems with broadcast station interference, we have decided to move the net to a new time of 4 pm Eastern. This will take effect this coming Sunday, January 12th.

Moving the net has been a regular discussion point every winter for several years now, but no action was ever taken. This year the signal strength of the interfering station has been so strong, we felt it was needed to keep the net healthy. Please make the new times on your calendar and we hope to hear everyone this coming Sunday at the new time.

The Tuesday evening net remains unchanged and will remain on Tuesday at 8:00 PM on 3.865 mhz.

Sunday @ 4:00 PM Eastern on 7.238 mhz +/- QRM
Tuesday @ 8:00 PM Eastern on 3.865 mhz +/- QRM

73's,
Mark, WB0IQK

18034. Drake stuff at R&L Electronics

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-06 20:58:38 UTC
From: Dan Galligan
Topic: 18034 Message: 18034

Got an email, an hour or so ago, from R&L Electronics, with the following Drake equipment for sale, so, I thought I ought to pass it on to y'all.

DRAKE
P75 HYBRID PHONE PATCH $49.00
TR7 DC CABLE 12V DC APROX 6FT $34.00
DC4 DRAKE DC4 MOBILE POWER SUPPLY $59.00
TR4C AM/SSB/CW 80 THROUGH 10 TRANSCEIVER 15M AND 10 METERS VERY LOW OUTPUT $325.00
RT4524 Remote Control for Satellite $10.00
TR4C AM/SSB/CW 80 THROUGH 10 TRANSCEIVER AM/SSB/CW 80 THROUGH 10 TRANSCEIVER $350.00
L7 160-15 METER 1KW AMP 160-15 METER 1KW AMP $1495.00
MS4 DRAKE EXTERNAL SPEAKER NO FEET ON THE BACK $69.00

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

18035. RV7 Stiff PTO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-06 21:14:28 UTC
From: Don Cunningham
Topic: 18035 Message: 18035

Anyone out there dealt with a "stiff" PTO on an RV7 successfully and easily?? I have a friend, not on the list, that has just bought an RV7 to go with a TR7 he got from me in a trade and he finds the RV7 PTO very stiff. I think the PTO on the late serial numbered TR7 was "silky" enogh that it spoiled him, hi, and i realize that most RV7's weren't used very much but thought I'd see if any of you had any ideas I hadn't thought of. I suggested letting some light machine oil (3 in 1 or similar) run down the shaft from the front while working the shaft, but didn't want to suggest anything more drastic till I asked the "guru's".
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3658/6980 - Release Date: 01/06/14

18036. Re: [DrakeRadio] RV7 Stiff PTO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-06 21:48:07 UTC
From: Chgypsy@...
Topic: 18035 Message: 18036

Don, Its a standard PTO and as I look at mine (which is not tight) it has
the allen wrench hole, the tool if I recall is a deep 3/32'nd. Carl WD8NHK

donc@... writes:

Anyone out there dealt with a "stiff" PTO on an RV7 successfully and
easily?? I 73,
Don, WB5HAK

18037. Re: [DrakeRadio] RV7 Stiff PTO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-06 21:51:32 UTC
From: Don Cunningham
Topic: 18035 Message: 18037

Thanks for the allen wrench size, Carl. I had forgotten that and will file that away for futures.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3658/6980 - Release Date: 01/06/14

18038. Re: [DrakeRadio] RV7 Stiff PTO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 05:15:26 UTC
From: Jim Shorney
Topic: 18035 Message: 18038

A single drop of oil, and no more, on the ball bearings may do it. Nylon gears should have no lube on them or they can swell up and bind. This is a well documented problem, although I do have a late R-7A that looks like it has factory lube on the gears with no problems (and is silky).

Otherwise, my process is to tear down, clean, and lube the mating metal parts and ball bearings (if necessary) with TriFlow clear bicycle grease. Not exactly a quick or casual fix.

Adjusting the tesion on the bearings has been documented a number of places, but I've not had to touch it in my gear.

73

-Jim
NU0C

On Mon, 6 Jan 2014 15:14:28 -0600, Don Cunningham wrote:

>Anyone out there dealt with a "stiff" PTO on an RV7 successfully and easily?? I have a friend, not on the list, that has just bought an RV7 to go with a TR7 he got from me in a trade and he finds the RV7 PTO very stiff. I think the PTO on the late serial numbered TR7 was "silky" enogh that it spoiled him, hi, and i realize that most RV7's weren't used very much but thought I'd see if any of you had any ideas I hadn't thought of. I suggested letting some light machine oil (3 in 1 or similar) run down the shaft from the front while working the shaft, but didn't want to suggest anything more drastic till I asked the "guru's".
>73,
>Don, WB5HAK
>
>
>-----
>No virus found in this message.
>Checked by AVG - www.avg.com
>Version: 2014.0.4259 / Virus Database: 3658/6980 - Release Date: 01/06/14
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18039. FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 19:43:39 UTC
From: <ka9egw1@...>
Topic: 18039 Message: 18039

Came into a whole bunch of boatanchors at a price to good to pass up AND way beyond my means...have a VERY clean R-4B/T-4XC/AC-4/MS-4 pair with extra 6JB6's. Pics at www http://www.britewerkz dot britewerkz dot com. Contact OFF LIST at collins at britewerkz dot com

73, Brian KA9EGW

18040. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 20:52:17 UTC
From: Dieter Horst
Topic: 18022 Message: 18040

Chapeau Jim!

Had started PCB work for the AVR approach already but your solution is definitely the best.

Isn't it good to trigger all sorts of discussion every now and then? Makes some people hot for clever ideas... ;-)

Will contact you off list.

73s Dieter DL5RDO

Am 04.01.2014 06:40, schrieb Jim Shorney:
>
>
> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help
> I can now
> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they
> should work
> in the R-7 as well). This is using the 74S387 device, for which I
> found a good
> supply of 1994-dated NOS chips at a reasonable cost.
>
> I have made a couple of changes to the original Drake code:
>
> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For
> most of
> us I imagine this will be enhanced uselessness, but what it will do is
> allow an
> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do
> not need
> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>
> 60 Meter transmit will also be possible, but a mod to the Digital
> Control PCB
> will still be needed.
>
> The unused third bit has been programmed to toggle on the three lowest
> band
> segments for 0.0-1.5 MHz. I figure that clever folks might find this
> useful to
> switch external VLF accessories. This bit can be custom programmed to
> switch on
> any band segment or segments by request if someone comes up with another
> interesting idea to make use of it.

>
> The first sample off the burner has been tested in my spare TR-7 and
> works as
> expected.
>
> For those of you (and I know who you are) who were involved in the recent
> conversation about U9003 that sparked this adventure and who expressed an
> interest in acquiring PROMs for your own needs, please contact me
> OFF-LIST if
> you are still interested. I will offer a special one-time low price
> for your
> personal use or spares only. That is, I don't want to see them showing
> up for
> sale on eBay or other places. After that, capitalism will kick in and
> I will be
> asking a fair price in hopes of at least eventually recovering what I have
> invested in this project.
>
> (Garey, stop reading now)
>
> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled
> pin IC
> sockets available if you want one with your PROM. These are the non-gold
> version.
>
> Again, contact me OFF-LIST.
>
> 73
>
> -Jim
> NU0C
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>

18041. 6jb6 tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 21:58:24 UTC
From: <bad6qd@...>
Topic: 18041 Message: 18041

international brand 6jb6 usable for t4xb?

18042. Re: [DrakeRadio] 6jb6 tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 22:04:06 UTC
From: Garey Barrell
Topic: 18041 Message: 18042

Maybe.... My understanding is International is/was a 're-boxer'. They buy tubes wherever they can, then put their name on them.... No way to know who might have actually built the tube.

So they 'might' work, but the odds are against you.

Garey - K4OAH
Campton Hills, IL

On Jan 7, 2014, at 3:58 PM, <bad6qd@...> wrote:

>
>
> international brand 6jb6 usable for t4xb?
>
>
>
>

18043. Re: [DrakeRadio] 6jb6 tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-07 22:09:21 UTC
From: vacuuminded2@...
Topic: 18041 Message: 18043

Yes it is possible to identify the actual manufacturer. Send me or the list a good photo clearly showing where "6JB6" is printed on the tube

Chris

Sent from my outdated iPhone wireless thingy

On Jan 7, 2014, at 4:04 PM, Garey Barrell <k4oah@...> wrote:

> Maybe.... My understanding is International is/was a 're-boxer'. They buy tubes wherever they can, then put their name on them.... No way to know who might have actually built the tube.
>
> So they 'might' work, but the odds are against you.
>
> Garey - K4OAH
> Campton Hills, IL
>
>
>
> On Jan 7, 2014, at 3:58 PM, <bad6qd@...> wrote:
>
>> international brand 6jb6 usable for t4xb?
>>
>
>

18044. 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 00:14:35 UTC
From: <bad6qd@...>
Topic: 18044 Message: 18044

how about radtel brand tubes? sound something from the pioneer days!

18045. Re: [DrakeRadio] 6jb6 tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 00:15:49 UTC
From: <bad6qd@...>
Topic: 18041 Message: 18045

some one is selling,do not have the tubes. tom

18046. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 00:43:33 UTC
From: vacuuminded2@...
Topic: 18044 Message: 18046

The brand on the box and stamped on the glass is nearly meaningless. There was so much cross branding, even amongst the big three. You will find GE tubes marked as RCA, Sylvania marked as GE, etc. Let alone once you get into the privately labeled stuff. You need to look at the physical construction and how the _manufacturer_ marked the tube before it was branded. Again, pictures often tell the tale.

73
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Jan 7, 2014, at 6:14 PM, <bad6qd@...> wrote:

> how about radtel brand tubes? sound something from the pioneer days!
>

18047. Re: [DrakeRadio] 6jb6 tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 01:54:50 UTC
From: Steve Wedge
Topic: 18041 Message: 18047

If they're cheap enough (say $10 ea), I'd have a go.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: bad6qd@...
Sent: Tuesday, January 07, 2014 4:58 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] 6jb6 tubes

international brand 6jb6 usable for t4xb?

18048. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 02:02:32 UTC
From: Garey Barrell
Topic: 18044 Message: 18048

Chris -

I know Sylvania had an exclusive deal with Zenith to make Zenith branded tubes, but my understanding from someone who
worked at Sylvania was that they never cross-branded tubes from anyone else.
They sold to others but if it said Sylvania on it, they made it. They had Yellow branded tubes that were for
Distributor sales, and Green were sold in bulk only to OEMs, with a reduced warranty.

I worked for a big distributor in Louisville while I was in High School, and my fondest memory is of the 60' long, floor
to 7' high, double sided aisle with all those beautiful yellow and black boxes!!!.. I still recall the 12AX7 sold for
$0.93.

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

vacuuminded2@... wrote:
>
>
> The brand on the box and stamped on the glass is nearly meaningless. There was so much cross branding, even amongst
> the big three. You will find GE tubes marked as RCA, Sylvania marked as GE, etc. Let alone once you get into the
> privately labeled stuff. You need to look at the physical construction and how the _manufacturer_ marked the tube
> before it was branded. Again, pictures often tell the tale.
>
> 73
> Chris kc9ieq
>
> Sent from my outdated iPhone wireless thingy
>
> On Jan 7, 2014, at 6:14 PM, <bad6qd@... <mailto:bad6qd@...>> wrote:
>
>> how about radtel brand tubes? sound something from the pioneer days!
>

18049. L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 02:31:16 UTC
From: Ryan Scott
Topic: 18049 Message: 18049

Greetings to the group. About a year ago, I picked up a L4B an PS from a local craigslist ad. Looked decent and complete, but had no way to test, but ended up picking it up anyway for $500. I ended up picking up the Harbach PCB and kit to rebuild the PS (which had original caps). I also have the soft key which I have yet to install. Once I rebuilt the PS and tested it with low voltage, I applied AC power (I wired it for 120 since I don't have 220 readily available) and POP went the .82 ohm resistor. Double checking my work (interlock disabled and well aware of HV danger!) after waiting for the PS to discharge I checked the plates of the tubes to ground and had no continuity. So it appeared nothing was shorted on the HV line. I pulled both tubes out, and fired it up after replacing the .82 ohm resistor in the PS. No pop and plate voltage indicated on the meter and confirmed with my Fluke DMM with HV probe. Put in the 'newer' looking
tube only (they did not appear to be matched) and again applied power. POP again. Another 0.82 ohm resistor, pulled that tube out, put the other tube in, apply power, all OK. (filament and bias cut off voltage appear normal - no RF applied yet).

At this point I am trying to decide if I should continue with the amp as I already have $650 invested in it and I may need to put another $400 into it. (tubes and plate tuning capacitor)

My questions for the group are:

1) Plate tuning cap has arcing right under where the tank coil connects to the cap on top. (previous owner filed down, but about 1/4" of plate is missing and somewhat pitted). Assuming that the previous owner overdrove this amp to cause this or something else?
2) Aside from another parts unit, where would one obtain this plate cap, or can it be repaired?
3) Can I test the amp with the one tube in it? if so, what would the recommended drive levels and plate/grid current be?
4) I cannot find any visible damage on the tube that is bad and it checks OK with a DMM (no shorts) but when it's in the amp and HV is applied... POP!   --- Not wanting to get into a lengthy discussion on tube failures but what causes this? Is the plate coming into contact with the grids when HV is applied, or is the grid shorting to the cathode and turning the tube full on and causing the overload at power on?

I'm usually a lurker on the group and appreciate all the discussions. This has been keeping me up at night and I thought I would see what the groups collective wisdom brings me.

73, Ryan N7QJ

18050. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 02:41:13 UTC
From: Steve Wedge
Topic: 18049 Message: 18050

I have seen 3-500Z's fail in the same manner. Always assumed grid to plate short since the grid chokes would pop. Heating would cause them to touch but that was just a WAG on my part.

The amp is worth the investment; you'd get your money back if you sold it.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Jan 7, 2014, at 9:31 PM, Ryan Scott <tweeker42000@...> wrote:
>
> Greetings to the group. About a year ago, I picked up a L4B an PS from a local craigslist ad. Looked decent and complete, but had no way to test, but ended up picking it up anyway for $500. I ended up picking up the Harbach PCB and kit to rebuild the PS (which had original caps). I also have the soft key which I have yet to install. Once I rebuilt the PS and tested it with low voltage, I applied AC power (I wired it for 120 since I don't have 220 readily available) and POP went the .82 ohm resistor. Double checking my work (interlock disabled and well aware of HV danger!) after waiting for the PS to discharge I checked the plates of the tubes to ground and had no continuity. So it appeared nothing was shorted on the HV line. I pulled both tubes out, and fired it up after replacing the .82 ohm resistor in the PS. No pop and plate voltage indicated on the meter and confirmed with my Fluke DMM with HV probe. Put in the 'newer' looking tube only (they did not appear to be matched) and again applied power. POP again. Another 0.82 ohm resistor, pulled that tube out, put the other tube in, apply power, all OK. (filament and bias cut off voltage appear normal - no RF applied yet).
>
> At this point I am trying to decide if I should continue with the amp as I already have $650 invested in it and I may need to put another $400 into it. (tubes and plate tuning capacitor)
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> 3) Can I test the amp with the one tube in it? if so, what would the recommended drive levels and plate/grid current be?
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>

> I'm usually a lurker on the group and appreciate all the discussions. This has been keeping me up at night and I thought I would see what the groups collective wisdom brings me.
>
> 73, Ryan N7QJ
>

18051. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 02:46:32 UTC
From: vacuuminded2@...
Topic: 18044 Message: 18051

I have no reason to disbelieve your claim being true during the time you worked there. However, I know for a fact that Zenith brand tubes exist that were not made by Sylvania. I have Zenith branded 6BQ5's that were made by Amperex, for example.

As for ALL Sylvania tubes being manufactured by Sylvania, this is a possibility. I can't think of a tube to dispute this with offhand. Out of sheer intrigue, I will rummage through some boxes and see if I can confirm this.

I'm not saying that the exclusive deal with Zenith didn't exist- only that it must have changed throughout the years, or with types of tubes (receiving versus power versus sweep, etc)

Also, it's not impossible under said Zenith contract, that Sylvania couldn't have subcontracted some tubes to other manufacturers that were tooled up to make a specific tube at that time.

That being said, All of the actual Sylvania branded 6JS6's I have seen thus far were indeed made by Sylvania.

I would still double check, regardless what brand they are inked. If manufacturer is unable to be determined, agreed sticking with the Sylvania name would yield better odds.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Jan 7, 2014, at 8:02 PM, Garey Barrell <k4oah@mindspring.com> wrote:

> Chris -
>
> I know Sylvania had an exclusive deal with Zenith to make Zenith branded tubes, but my understanding from someone who
> worked at Sylvania was that they never cross-branded tubes from anyone else.
> They sold to others but if it said Sylvania on it, they made it. They had Yellow branded tubes that were for
> Distributor sales, and Green were sold in bulk only to OEMs, with a reduced warranty.
>
> I worked for a big distributor in Louisville while I was in High School, and my fondest memory is of the 60' long, floor
> to 7' high, double sided aisle with all those beautiful yellow and black boxes!!!.. I still recall the 12AX7 sold for
> $0.93.
>
> 73, Garey - K4OAH
> Campton Hills, IL
>

> Drake 2-B, 2C/2-NT, A, B,
> C-Line, TR-4, TR-4C/CW/wRIT
> WWW.K4OAH.COM
>
> vacuuminded2@yahoo.com wrote:
> >
> >
> > The brand on the box and stamped on the glass is nearly meaningless. There was so much cross branding, even amongst
> > the big three. You will find GE tubes marked as RCA, Sylvania marked as GE, etc. Let alone once you get into the
> > privately labeled stuff. You need to look at the physical construction and how the _manufacturer_ marked the tube
> > before it was branded. Again, pictures often tell the tale.
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> > 73
> > Chris kc9ieq
> >
> > Sent from my outdated iPhone wireless thingy
> >
> > On Jan 7, 2014, at 6:14 PM, <bad6qd@... <mailto:bad6qd@...>> wrote:
> >
> >> how about radtel brand tubes? sound something from the pioneer days!
> >
>
>

18052. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 02:55:42 UTC
From: vacuuminded2@...
Topic: 18044 Message: 18052

Typo- all of the actual Sylvania 6JB6, not 6JS6

C

Sent from my outdated iPhone wireless thingy

On Jan 7, 2014, at 8:46 PM, vacuuminded2@... wrote:

> I have no reason to disbelieve your claim being true during the time you worked there. However, I know for a fact that Zenith brand tubes exist that were not made by Sylvania. I have Zenith branded 6BQ5's that were made by Amperex, for example.
>
> As for ALL Sylvania tubes being manufactured by Sylvania, this is a possibility. I can't think of a tube to dispute this with offhand. Out of sheer intrigue, I will rummage through some boxes and see if I can confirm this.
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> I'm not saying that the exclusive deal with Zenith didn't exist- only that it must have changed throughout the years, or with types of tubes (receiving versus power versus sweep, etc)
>
> Also, it's not impossible under said Zenith contract, that Sylvania couldn't have subcontracted some tubes to other manufacturers that were tooled up to make a specific tube at that time.
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> That being said, All of the actual Sylvania branded 6JS6's I have seen thus far were indeed made by Sylvania.
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> I would still double check, regardless what brand they are inked. If manufacturer is unable to be determined, agreed sticking with the Sylvania name would yield better odds.
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> Regards,
> Chris kc9ieq
>
> Sent from my outdated iPhone wireless thingy
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> On Jan 7, 2014, at 8:02 PM, Garey Barrell <k4oah@...> wrote:
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>> >
>> > 73
>> > Chris kc9ieq
>> >
>> > Sent from my outdated iPhone wireless thingy
>> >
>> > On Jan 7, 2014, at 6:14 PM, <bad6qd@... <mailto:bad6qd@aol.com>> wrote:
>> >
>> >> how about radtel brand tubes? sound something from the pioneer days!
>> >
>
>

18053. Source for New Drake Dials Here?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 03:14:34 UTC
From: <w7apm@...>
Topic: 18053 Message: 18053

Need a new drake dial?

Check this out. I have no ownership in this business but it might be a way to salvage some Drake rigs with bad dials. He says he needs a bad dial to use for a model.

http://www.mulfingertech.com/apps/photos/album?albumid=15311457

Marty
KL7AM

18054. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 04:08:30 UTC
From: Jim Shorney
Topic: 18022 Message: 18054

Thank you, Dieter. Your AVR looks interesting. I have a sufficient supply of PROMs to last a little while, but other solutions will be needed when they are gone and supplies have dried up or gone crazy expensive.

Discussion is good. Everything surfaced that let this come together, and new ideas are afoot. Allons-y!

73

-Jim
NU0C

On Tue, 07 Jan 2014 21:52:17 +0100, Dieter Horst wrote:

>Chapeau Jim!
>
>Had started PCB work for the AVR approach already but your solution is
>definitely the best.
>
>Isn't it good to trigger all sorts of discussion every now and then?
>Makes some people hot for clever ideas... ;-)
>
>Will contact you off list.
>
>73s Dieter DL5RDO
>
>
>
>
>
>
>
>
>
>Am 04.01.2014 06:40, schrieb Jim Shorney:
>>
>>
>> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help
>> I can now
>> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they
>> should work
>> in the R-7 as well). This is using the 74S387 device, for which I
>> found a good
>> supply of 1994-dated NOS chips at a reasonable cost.
>>
>> I have made a couple of changes to the original Drake code:
>>

>> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For
>> most of
>> us I imagine this will be enhanced uselessness, but what it will do is
>> allow an
>> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do
>> not need
>> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
>> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>>
>> 60 Meter transmit will also be possible, but a mod to the Digital
>> Control PCB
>> will still be needed.
>>
>> The unused third bit has been programmed to toggle on the three lowest
>> band
>> segments for 0.0-1.5 MHz. I figure that clever folks might find this
>> useful to
>> switch external VLF accessories. This bit can be custom programmed to
>> switch on
>> any band segment or segments by request if someone comes up with another
>> interesting idea to make use of it.
>>
>> The first sample off the burner has been tested in my spare TR-7 and
>> works as
>> expected.
>>
>> For those of you (and I know who you are) who were involved in the recent
>> conversation about U9003 that sparked this adventure and who expressed an
>> interest in acquiring PROMs for your own needs, please contact me
>> OFF-LIST if
>> you are still interested. I will offer a special one-time low price
>> for your
>> personal use or spares only. That is, I don't want to see them showing
>> up for
>> sale on eBay or other places. After that, capitalism will kick in and
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>> asking a fair price in hopes of at least eventually recovering what I have
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>> (Garey, stop reading now)
>>
>> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled
>> pin IC
>> sockets available if you want one with your PROM. These are the non-gold
>> version.
>>
>> Again, contact me OFF-LIST.
>>
>> 73
>>

>> -Jim
>> NU0C
>> --
>>
>> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18055. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 06:20:52 UTC
From: Richard Knoppow
Topic: 18044 Message: 18055

----- Original Message -----
From: <vacuuminded2@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, January 07, 2014 6:46 PM
Subject: Re: [DrakeRadio] 6jb6

I have no reason to disbelieve your claim being true during the time you worked there. However, I know for a fact that Zenith brand tubes exist that were not made by Sylvania. I have Zenith branded 6BQ5's that were made by Amperex, for example.

As for ALL Sylvania tubes being manufactured by Sylvania, this is a possibility. I can't think of a tube to dispute this with offhand. Out of sheer intrigue, I will rummage through some boxes and see if I can confirm this.

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Also, it's not impossible under said Zenith contract, that Sylvania couldn't have subcontracted some tubes to other manufacturers that were tooled up to make a specific tube at that time.

That being said, All of the actual Sylvania branded 6JS6's I have seen thus far were indeed made by Sylvania.

I would still double check, regardless what brand they are inked. If manufacturer is unable to be determined, agreed sticking with the Sylvania name would yield better odds.

Regards,
Chris kc9ieq

` Probably someone on the Tube Collectors list would know for certain. I do know that Sylvania had a lot of trouble with RCA over patent rights partly because RCA thought they were making better tubes. At some point in their history RCA, GE and Westinghouse may have sold tubes under their brand names made by the others but I think Sylvania was out of this. A look at the structure of the 6JB6 shows a lot of variation among brands. I have a box full of them, some good some not, as spares and will have a look. Of all the makers Sylvania seems to have been the only

one to include information on the use of the 6JB6 as an RF
amplifier, the others just show it as a sweep tube.
A lot of the puzzles about tube manufacturing traces
back to the intrigue and incest surrounding the formation of
RCA and its evolution into a monopoly of manufacture.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18056. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 07:06:28 UTC
From: vacuuminded2@...
Topic: 18044 Message: 18056

Well I just did some quick digging and spot checked a bunch of Sylvania tubes.

I am sorry to say that across the board, a Sylvania branded tube is not necessarily manufactured by Sylvania. I have in front of me a NOS Sylvania 6S4A, which is actually made by RCA. Also a much older (leaf logo on base) 6H6GT/G which was also made by RCA, but branded Sylvania.

Also, I found a NOS Zenith 6ME8 which was made by GE- not Sylvania.

<insert sad trombone sound>

So against hope, looks like we still have to look beyond the cardboard and ink.

73
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Jan 8, 2014, at 12:20 AM, "Richard Knoppow" <1oldlens1@ix.netcom.com> wrote:

>
> ----- Original Message -----
> From: <vacuuminded2@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, January 07, 2014 6:46 PM
> Subject: Re: [DrakeRadio] 6jb6
>
> I have no reason to disbelieve your claim being true during
> the time you worked there. However, I know for a fact that
> Zenith brand tubes exist that were not made by Sylvania. I
> have Zenith branded 6BQ5's that were made by Amperex, for
> example.
>
> As for ALL Sylvania tubes being manufactured by Sylvania,
> this is a possibility. I can't think of a tube to dispute
> this with offhand. Out of sheer intrigue, I will rummage
> through some boxes and see if I can confirm this.
>
> I'm not saying that the exclusive deal with Zenith didn't
> exist- only that it must have changed throughout the years,
> or with types of tubes (receiving versus power versus sweep,
> etc)
>
> Also, it's not impossible under said Zenith contract, that
> Sylvania couldn't have subcontracted some tubes to other
> manufacturers that were tooled up to make a specific tube at
> that time.

>
> That being said, All of the actual Sylvania branded 6JS6's I
> have seen thus far were indeed made by Sylvania.
>
> I would still double check, regardless what brand they are
> inked. If manufacturer is unable to be determined, agreed
> sticking with the Sylvania name would yield better odds.
>
> Regards,
> Chris kc9ieq
>
> ` Probably someone on the Tube Collectors list
> would know for certain. I do know that Sylvania had a lot
> of trouble with RCA over patent rights partly because RCA
> thought they were making better tubes. At some point in
> their history RCA, GE and Westinghouse may have sold tubes
> under their brand names made by the others but I think
> Sylvania was out of this. A look at the structure of the
> 6JB6 shows a lot of variation among brands. I have a box
> full of them, some good some not, as spares and will have a
> look. Of all the makers Sylvania seems to have been the only
> one to include information on the use of the 6JB6 as an RF
> amplifier, the others just show it as a sweep tube.
> A lot of the puzzles about tube manufacturing traces
> back to the intrigue and incest surrounding the formation of
> RCA and its evolution into a monopoly of manufacture.
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>

18057. RE: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 12:27:33 UTC
From: keith evans
Topic: 18049 Message: 18057

Hello Ryan,

It maybe that the L4B has not been fired up for a considerable time.

And it maybe the suspect tube has become gassy.

However, first check around the Grid circuits to make sure they haven't been damaged.

Then you could try removing the HT and just leave the amp with the Heaters on for about 24hrs,

This hopefully will get the Getter hot to expel the air.

With a Variac, bring up the HT slowly over slowly over a period of time, until you get to the CW/ TUNE norm of about 1800v.

If all is well, Tune and Load up the Amp to the max CW/ Tune output, and leave it sit there for a 30secs to a minute to let the Tubes get good and hot,

This will hopefully get the Getter to remove any remaining air.

Don't keep it on TX so long that you damage the psu

Do this perhaps 5 or 6 times. With cooling down periods about 3 times longer than you had it on Tx,

If all is well try running the amp in the SSB position and hopefully it will be ok.

If it blows another Glitch resistor then the problem is likely to be the suspect tube.

I hope this makes sense.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Ryan Scott
Sent: 08 January 2014 02:31
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] L4-B and 3-500Z

Greetings to the group. About a year ago, I picked up a L4B an PS from a local craigslist ad. Looked decent and complete, but had no way to test, but ended up picking it up anyway for $500. I ended up picking up the

Harbach PCB and kit to rebuild the PS (which had original caps). I also have the soft key which I have yet to install. Once I rebuilt the PS and tested it with low voltage, I applied AC power (I wired it for 120 since I don't have 220 readily available) and POP went the .82 ohm resistor. Double checking my work (interlock disabled and well aware of HV danger!) after waiting for the PS to discharge I checked the plates of the tubes to ground and had no continuity. So it appeared nothing was shorted on the HV line. I pulled both tubes out, and fired it up after replacing the .82 ohm resistor in the PS. No pop and plate voltage indicated on the meter and confirmed with my Fluke DMM with HV probe. Put in the 'newer' looking tube only (they did not appear to be matched) and again applied power. POP again. Another 0.82 ohm resistor, pulled that tube out, put the other tube in, apply power, all OK. (filament and bias cut off voltage appear normal - no RF applied yet).

At this point I am trying to decide if I should continue with the amp as I already have $650 invested in it and I may need to put another $400 into it. (tubes and plate tuning capacitor)

My questions for the group are:

1) Plate tuning cap has arcing right under where the tank coil connects to the cap on top. (previous owner filed down, but about 1/4" of plate is missing and somewhat pitted). Assuming that the previous owner overdrove this amp to cause this or something else?

2) Aside from another parts unit, where would one obtain this plate cap, or can it be repaired?

3) Can I test the amp with the one tube in it? if so, what would the recommended drive levels and plate/grid current be?

4) I cannot find any visible damage on the tube that is bad and it checks OK with a DMM (no shorts) but when it's in the amp and HV is applied... POP! --- Not wanting to get into a lengthy discussion on tube failures but what causes this? Is the plate coming into contact with the grids when HV is applied, or is the grid shorting to the cathode and turning the tube full on and causing the overload at power on?

I'm usually a lurker on the group and appreciate all the discussions. This has been keeping me up at night and I thought I would see what the groups collective wisdom brings me.

73, Ryan N7QJ

18058. RE: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 12:43:54 UTC
From: <dcoffman@...>
Topic: 18049 Message: 18058

Ryan,

When you placed the tube in the socket that did not pop the glitch resistor, did you place it in the same socket that popped the glitch resistor?

Did you leave the HV line disconnected and attempt to power the amp on just to light the filaments? The filaments will not provide enough heat to anywhere begin to getter the tubes. If a DVMM shows infinity between the grids and plate, that doesn't mean much at high voltage. You may have a short that would only show up on high voltage. I imagine that you could megger the tubes, checking the "non popping one against the popping one." I would first ensure that you are placing the tubes in the same socket to ensure you don't have some failed component on the tube socket.

When you get the thing running, I would only apply a carrier for a short burst, nothing long and tune up as quickly as possible.

Do you know anyone close that has a known good set of tubes or an amp that you can test your tubes in?

I have heard of some that have run the amplifier with one tube. It will tune and load completely different than if two tubes were installed. I would think it a worthy experiment. I would first closely inspect the wiring and components around the tube sockets. If you have placed the suspected bad tube in the same socket every time, the socket, wiring and its components may very well be at issue rather than the tube.

Hopefully Evan will chime in shortly.

18059. RE: L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 12:54:36 UTC
From: <dcoffman@...>
Topic: 18049 Message: 18059

Ryan,

One other thing that would yield great information would be to post your question on eham in the amplifier section. W8JI, Tom Raunch, is a wealth of knowledge and has a great website w8ji.com. In addition I would also aim the question at Steve Katz, WB2WIK. He is another that builds repairs and is a significant resource on amplifiers. He has posted a number of articles in QRZ and has helped a tremendous number of hams with amplifier issues.

Regards,

Doug - N9XTF

18060. 2-B's FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 13:09:58 UTC
From: Steve Wedge
Topic: 18060 Message: 18060

The holidays are over, it's time to start working on some radios - that is, when job and home improvements aren't eating into the time!

I've got two 2-B receivers that have been repaired, cleaned and aligned. They're ready for new homes.

#7979 is in average-to-above average cosmetic condition. The chassis has some bright spots but is mostly brown, like an old penny. Small rust spots but nothing bad. Lettering is worn around the POWER and CALIBRATOR switches but otherwise the front panel is in good shape.

#6237 is definitely above-average. Chassis is mostly bright copper, with no wear on the front panel.

Both receivers have been aligned and checked out. They have their original tubular capacitors and are not humming. Both have nice cabinets with little scratching, rubber feet intact and no dents. They both work as they should and are hot little receivers!

If desired, I will order and install a Hayseed or 2-B re-cap kit for an additional charge. Will ship overseas but I will declare a value on Customs forms.

I have pics available - please contact me off-list for pics, prices and shipping info.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18061. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 13:29:38 UTC
From: Henry L. Dorkin
Topic: 18061 Message: 18061

This message was originally HTML formatted. View in a HTML capable client to see the original version.\r\n\r\n Garey -

Just remember that at the time the 12AX7 was 93 cents, I was making minimum wage at my summer job - $1.25/hr. Forty hour week paid you 50 bucks.....everything's relative!
73 -
Hank
WM1V

---- Original Message ----
From: "Garey Barrell" k4oah@mindspring.com
Sent: 1/7/2014 9:02:43 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 6jb6

Chris -

I know Sylvania had an exclusive deal with Zenith to make Zenith branded tubes, but my understanding from someone who
worked at Sylvania was that they never cross-branded tubes from anyone else.
They sold to others but if it said Sylvania on it, they made it. They had Yellow branded tubes that were for
Distributor sales, and Green were sold in bulk only to OEMs, with a reduced warranty.

I worked for a big distributor in Louisville while I was in High School, and my fondest memory is of the 60' long, floor
to 7' high, double sided aisle with all those beautiful yellow and black boxes!!!.. I still recall the 12AX7 sold for
$0.93.

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

vacuuminded2@yahoo.com wrote:

The brand on the box and stamped on the glass is nearly meaningless. There was so much cross branding, even amongst
the big three. You will find GE tubes marked as RCA, Sylvania marked as GE, etc. Let alone once you get into the
privately labeled stuff. You need to look at the physical construction and how the _manufacturer_ marked the tube
before it was branded. Again, pictures often tell the tale.

73
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Jan 7, 2014, at 6:14 PM, bad6qd@aol.com mailto:bad6qd@aol.com wrote:

how about radtel brand tubes? sound something from the pioneer days!

18062. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 13:50:45 UTC
From: Steve Wedge
Topic: 18049 Message: 18062

Yep -

That sounds very much like a lot of SB-220's and the occasional TL-922 that I'd work on, back when I used to repair these amps for pay.

You could meter the tubes anywhere you wanted, on the 20M range - it didn't matter. They would show as open, you'd put them in the amp and one or both would make the grid chokes go "POW!".

The root cause could be sagging grid wires - possibly caused by over-driving/excessive grid current or from a previous parasitic oscillation. Evidence of a possible parasitic or other stress is evident from your description of the plate tuning cap as having an area that severely arced. A tube that exhibits such a short is now a shack decoration or lamp base, I'm afraid. It will never work again.

I know I'm going to get some flack for saying this, but if you put the grids at *almost* DC ground and at RF ground, by using a 30 ohm 1/2W MF resistor from each grid to the chassis, plus extra capacitance on each pin, you'll lose a few watts of output but will gain having a true 5c fuse in the grid that will open up with a mere wisp of smoke under a catastrophic failure such as a grid-to-plate short or parasitic oscillation. I fixed loads of Heathkit amps, plus some Ameritron and Kenwood amps using this circuit. Those grid chokes are a lot harder to get than a 5c resistor!

My Amp Supply LC-500ZB was changed over to this circuit and I was able to get over 1300W out with it on 20m and about 1100W on 10. I also had some different parasitic suppressors on it, which reduced the power out a little. Losing a couple hundred watts was a small price to pay to prevent parts inside from blowing up

Here's a shot of a grid-cathode short.
http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=13191

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: dcoffman@...
Sent: Wednesday, January 08, 2014 7:43 AM
To: DrakeRadio@yahoogroups.com
Subject: RE: [DrakeRadio] L4-B and 3-500Z

Ryan,

When you placed the tube in the socket that did not pop the glitch resistor, did you place it in the same socket that popped the glitch resistor?

Did you leave the HV line disconnected and attempt to power the amp on just to light the filaments? The filaments will not provide enough heat to anywhere begin to getter the tubes. If a DVMM shows infinity between the grids and plate, that doesn't mean much at high voltage. You may have a short that would only show up on high voltage. I imagine that you could megger the tubes, checking the "non popping one against the popping one." I would first ensure that you are placing the tubes in the same socket to ensure you don't have some failed component on the tube socket.

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Do you know anyone close that has a known good set of tubes or an amp that you can test your tubes in?

I have heard of some that have run the amplifier with one tube. It will tune and load completely different than if two tubes were installed. I would think it a worthy experiment. I would first closely inspect the wiring and components around the tube sockets. If you have placed the suspected bad tube in the same socket every time, the socket, wiring and its components may very well be at issue rather than the tube.

Hopefully Evan will chime in shortly.

[Non-text portions of this message have been removed]

18063. Re: [DrakeRadio] 6jb6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 15:22:16 UTC
From: Garey Barrell
Topic: 18044 Message: 18063

Chris -

OK. Now that I think about it, we were discussing sweep tubes at the time, and perhaps that was what was intended. I
know Sylvania was the only one to characterize their sweep tubes for RF service, and publish the results, at least at
that time. I never worried about typical receiving tubes, as they were usually used for their intended purpose and I
knew there was cross-branding among most all 'major' manufacturers.

My experience with sweep tubes has been that sticking with the 'big 3' plus Zenith gives a 100% success rate. Any other
brand is a crap shoot. Some work fine, others not so much!... I have also found that 6GJ5s are also 100% IF you stick
to the same brands. The only difference is that the Suppressor grid is tied internally to the Cathode, in the GJ,
rather than being brought to it's own pin. This does alter the neutralization a bit, but so far at least still within
range of the cap in the T-4X(any). I've not tried them in the TR-4(any) and so that might take a slight adjustment to
the neut cap.

The most interesting anomaly I have found is the VERY occasional 'too tall' 6JB6. I've never personally seen an RCA or
Sylvania oversize, but have heard they exist. They would have to be outside the maximum 'seated height' specified in
the data sheet for both brands.

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

vacuuminded2@... wrote:
>
>
> I have no reason to disbelieve your claim being true during the time you worked there. However, I know for a fact
> that Zenith brand tubes exist that were not made by Sylvania. I have Zenith branded 6BQ5's that were made by Amperex,
> for example.
>
> As for ALL Sylvania tubes being manufactured by Sylvania, this is a possibility. I can't think of a tube to dispute

> this with offhand. Out of sheer intrigue, I will rummage through some boxes and see if I can confirm this.
>
> I'm not saying that the exclusive deal with Zenith didn't exist- only that it must have changed throughout the years,
> or with types of tubes (receiving versus power versus sweep, etc)
>
> Also, it's not impossible under said Zenith contract, that Sylvania couldn't have subcontracted some tubes to other
> manufacturers that were tooled up to make a specific tube at that time.
>
> That being said, All of the actual Sylvania branded 6JS6's I have seen thus far were indeed made by Sylvania.
>
> I would still double check, regardless what brand they are inked. If manufacturer is unable to be determined, agreed
> sticking with the Sylvania name would yield better odds.
>
> Regards,
> Chris kc9ieq
>
> Sent from my outdated iPhone wireless thingy
>
> On Jan 7, 2014, at 8:02 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
>> Chris -
>>
>> I know Sylvania had an exclusive deal with Zenith to make Zenith branded tubes, but my understanding from someone who
>> worked at Sylvania was that they never cross-branded tubes from anyone else.
>> They sold to others but if it said Sylvania on it, they made it. They had Yellow branded tubes that were for
>> Distributor sales, and Green were sold in bulk only to OEMs, with a reduced warranty.
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>> I worked for a big distributor in Louisville while I was in High School, and my fondest memory is of the 60' long, floor
>> to 7' high, double sided aisle with all those beautiful yellow and black boxes!!!.. I still recall the 12AX7 sold for
>> $0.93.
>>
>> 73, Garey - K4OAH
>> Campton Hills, IL
>>
>> Drake 2-B, 2C/2-NT, A, B,
>> C-Line, TR-4, TR-4C/CW/wRIT
>> WWW.K4OAH.COM <http://WWW.K4OAH.COM>
>>
>> vacuuminded2@... <mailto:vacuuminded2@...> wrote:
>> >
>> >

>> > The brand on the box and stamped on the glass is nearly meaningless. There was so much cross branding, even amongst
>> > the big three. You will find GE tubes marked as RCA, Sylvania marked as GE, etc. Let alone once you get into the
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>> >
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>> >
>> >> how about radtel brand tubes? sound something from the pioneer days!
>> >
>>
>
>
>

18064. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 15:23:37 UTC
From: <dcoffman@...>
Topic: 18049 Message: 18064

Steve,

You have sparked interest on a project that I am working on. I have seen Evan make several comments about the grid resistors as you did. I am refurbishing an SB220 that I acquired about 10 years ago and had been forgotten in the shack's closet. Everything bad that could be done to an amplifier has been done to this one. ON top of everything else, it had been placed on 11M and all of the band components removed.

I have stripped it down to the bare chassis to repair metal damage where it was dropped on the side and produced a severe chassis bend. Inspecting the tube socket connections, reveals that at least one of the grid chokes is burnt open. I like the idea of replacing the chokes with resistors expressly because they are easier to source. Can you provide a little more information on replacing them with resistors and what capacitance you have added?

I'm rebuilding the power supply and meter board as a bunch of the components, traces etc are completely burnt due to "golden screw drivers" and cold or missing solder joints. This unit will be quite nice when done, but I want to make sure I do it right.

Thanks for your time,

Doug - N9XTF

18065. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 15:31:10 UTC
From: Garey Barrell
Topic: 18022 Message: 18065

Hi Jim -

Congratulations!! We've just GOT to win one occasionally!! :-)

I'd like to get one, 'just in case', cause I know that means I'll never need it!

I'm still stuck in Chicago, about a foot of snow, and it's up to almost 3 degrees already this morning..... Only going
down to -6 tonight, so that's a 10 degree improvement over the last couple of nights.

73, Garey - K4OAH
Campton Hills, IL

Drake 2-B, 2C/2-NT, A, B,
C-Line, TR-4, TR-4C/CW/wRIT
WWW.K4OAH.COM

Jim Shorney wrote:
> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I can now
> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should work
> in the R-7 as well). This is using the 74S387 device, for which I found a good
> supply of 1994-dated NOS chips at a reasonable cost.
>
> I have made a couple of changes to the original Drake code:
>
> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For most of
> us I imagine this will be enhanced uselessness, but what it will do is allow an
> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not need
> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>
> 60 Meter transmit will also be possible, but a mod to the Digital Control PCB
> will still be needed.
>
> The unused third bit has been programmed to toggle on the three lowest band
> segments for 0.0-1.5 MHz. I figure that clever folks might find this useful to
> switch external VLF accessories. This bit can be custom programmed to switch on
> any band segment or segments by request if someone comes up with another
> interesting idea to make use of it.
>
> The first sample off the burner has been tested in my spare TR-7 and works as
> expected.
>
> For those of you (and I know who you are) who were involved in the recent
> conversation about U9003 that sparked this adventure and who expressed an
> interest in acquiring PROMs for your own needs, please contact me OFF-LIST if

> you are still interested. I will offer a special one-time low price for your
> personal use or spares only. That is, I don't want to see them showing up for
> sale on eBay or other places. After that, capitalism will kick in and I will be
> asking a fair price in hopes of at least eventually recovering what I have
> invested in this project.
>
> (Garey, stop reading now)
>
> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin IC
> sockets available if you want one with your PROM. These are the non-gold
> version.
>
> Again, contact me OFF-LIST.
>
> 73
>
> -Jim
> NU0C
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
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18066. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 16:02:42 UTC
From: Tim Kass
Topic: 18049 Message: 18066

Definitely sounds like the tube is shorting to ground as HV is applied, you can run that amp with one tube and see if just the one tube is shorting, likely, but could be something wrong with the socket as well, unlikely, but worth checking. I have a couple of "good looking 3-500z" that are bad, same thing, short as I applied HV or shorted when pushing them just a little. Not worth the risk of blowing that Plate transformer up.. also you might switch the .82 ohm to a more recommended 10 ohm at 10 watts.. read the reseach on that..

good luck

73, Tim K8WBL

On Wednesday, January 8, 2014 10:23 AM, "dcoffman@..." <dcoffman@pdswireless.com> wrote:

Steve,

You have sparked interest on a project that I am working on. I have seen Evan make several comments about the grid resistors as you did. I am refurbishing an SB220 that I acquired about 10 years ago and had been forgotten in the shack's closet. Everything bad that could be done to an amplifier has been done to this one. ON top of everything else, it had been placed on 11M and all of the band components removed.

I have stripped it down to the bare chassis to repair metal damage where it was dropped on the side and produced a severe chassis bend. Inspecting the tube socket connections, reveals that at least one of the grid chokes is burnt open. I like the idea of replacing the chokes with resistors expressly because they are easier to source. Can you provide a little more information on replacing them with resistors and what capacitance you have added?

I'm rebuilding the power supply and meter board as a bunch of the components, traces etc are completely burnt due to "golden screw drivers" and cold or missing solder joints. This unit will be quite nice when done, but I want to make sure I do it right.

Thanks for your time,

Doug - N9XTF

18067. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 18:25:50 UTC
From: <w1es1982@...>
Topic: 18049 Message: 18067

Doug -

The change I did to the SB-220 was right out of AG6K's 1990 QST article. I used to get the kits from him and install them. Over the years, his findings have been controversial, but I will say that any amp that I put his mods into did not come back for a repeat repair.

Notwithstanding the efficacy of the parasitic choke changes, I did like his solution to the grid overcurrent issue. On the SB-220, this change involves a single 470 pf @ 1 kV disc ceramic cap at each of the three grid pins (thus adding about 1800 pf to the grid-to-chassis capacitance), plus substituting the 30 ohm, 1/2W flameproof metal film resistor for each grid RF choke.

Yes, this does change the bias a little compared with directly grounding the grid. It also means that you won't take out any transformers or other expensive components if and whan you get a grid short to either the plate or cathode.

Some of the photos I've seen show the cathode/filament actually either touching or being very close to the grid. On the SB-220, they use a centre tap from one of the transformers to supply bias to the tubes. If such a short occurred and didn't open up a cheaper component, it will take that transformer out. That, by itself, is reason enough for me to protect the $100+ part(s) by adding about a buck's worth of commonly-available components and accepting slightly-lower output as a trade-off. After all, 200W reduction from 1500W isn't even 1 dB (it's about 0.6 dB).

Good luck with your amp project! Chances are very good that only one tube is bad, and, if that is the case, I'd sell the good one at a "used" price and get a matched pair to replace both of them. There are even used matched pairs available out there, but I believe RF Parts has replacements at reasonable prices, new.

73,

Steve, W1ES/4

---- Tim Kass <k8wbl@...> wrote:
> Definitely sounds like the tube is shorting to ground as HV is applied, you can run that amp with one tube and see if just the one tube is shorting, likely, but could be something wrong with the socket as well, unlikely, but worth checking. I have a couple of "good looking 3-500z" that are bad, same thing, short as I applied HV or shorted when pushing them just a little. Not worth the risk of blowing that Plate transformer up.. also you might switch the .82 ohm to a more recommended 10 ohm at 10 watts.. read the reseach on that..
>
> good luck
>
> 73, Tim K8WBL
>
>

>
> On Wednesday, January 8, 2014 10:23 AM, "dcoffman@..." <dcoffman@...> wrote:
>
>
> Steve,
>
> You have sparked interest on a project that I am working on. I have seen Evan make several comments about the grid resistors as you did. I am refurbishing an SB220 that I acquired about 10 years ago and had been forgotten in the shack's closet. Everything bad that could be done to an amplifier has been done to this one. ON top of everything else, it had been placed on 11M and all of the band components removed.
>
> I have stripped it down to the bare chassis to repair metal damage where it was dropped on the side and produced a severe chassis bend. Inspecting the tube socket connections, reveals that at least one of the grid chokes is burnt open. I like the idea of replacing the chokes with resistors expressly because they are easier to source. Can you provide a little more information on replacing them with resistors and what capacitance you have added?
>
> I'm rebuilding the power supply and meter board as a bunch of the components, traces etc are completely burnt due to "golden screw drivers" and cold or missing solder joints. This unit will be quite nice when done, but I want to make sure I do it right.
>
> Thanks for your time,
>
> Doug - N9XTF
>

18068. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 18:45:24 UTC
From: Doug
Topic: 18049 Message: 18068

The good news is both tubes are good. I'm temporarily running them In my L4 in place of the 3-400z tubes. I alternate them to keep them de-gassed.

I've spoken to rich directly about a couple of other issues and sad some of his articles. I missed the one about the grid protection. I've also seen the garbage between the two.

Thanks so much for the info

Doug - N9Xtf

Sent from my iPhone

> On Jan 8, 2014, at 13:25, <w1es1982@...> wrote:
>
> Doug -
>
> The change I did to the SB-220 was right out of AG6K's 1990 QST article. I used to get the kits from him and install them. Over the years, his findings have been controversial, but I will say that any amp that I put his mods into did not come back for a repeat repair.
>
> Notwithstanding the efficacy of the parasitic choke changes, I did like his solution to the grid overcurrent issue. On the SB-220, this change involves a single 470 pf @ 1 kV disc ceramic cap at each of the three grid pins (thus adding about 1800 pf to the grid-to-chassis capacitance), plus substituting the 30 ohm, 1/2W flameproof metal film resistor for each grid RF choke.
>
> Yes, this does change the bias a little compared with directly grounding the grid. It also means that you won't take out any transformers or other expensive components if and whan you get a grid short to either the plate or cathode.
>
> Some of the photos I've seen show the cathode/filament actually either touching or being very close to the grid. On the SB-220, they use a centre tap from one of the transformers to supply bias to the tubes. If such a short occurred and didn't open up a cheaper component, it will take that transformer out. That, by itself, is reason enough for me to protect the $100+ part(s) by adding about a buck's worth of commonly-available components and accepting slightly-lower output as a trade-off. After all, 200W reduction from 1500W isn't even 1 dB (it's about 0.6 dB).
>
> Good luck with your amp project! Chances are very good that only one tube is bad, and, if that is the case, I'd sell the good one at a "used" price and get a matched pair to replace both of them. There are even used matched pairs available out there, but I believe RF Parts has replacements at reasonable prices, new.
>
> 73,
>
> Steve, W1ES/4

>
> ---- Tim Kass <k8wbl@...> wrote:
> > Definitely sounds like the tube is shorting to ground as HV is applied, you can run that amp with one tube and see if just the one tube is shorting, likely, but could be something wrong with the socket as well, unlikely, but worth checking. I have a couple of "good looking 3-500z" that are bad, same thing, short as I applied HV or shorted when pushing them just a little. Not worth the risk of blowing that Plate transformer up.. also you might switch the .82 ohm to a more recommended 10 ohm at 10 watts.. read the reseach on that..
> >
> > good luck
> >
> > 73, Tim K8WBL
> >
> >
> >
> > On Wednesday, January 8, 2014 10:23 AM, "dcoffman@..." <dcoffman@...> wrote:
> >
> >
> > Steve,
> >
> > You have sparked interest on a project that I am working on. I have seen Evan make several comments about the grid resistors as you did. I am refurbishing an SB220 that I acquired about 10 years ago and had been forgotten in the shack's closet. Everything bad that could be done to an amplifier has been done to this one. ON top of everything else, it had been placed on 11M and all of the band components removed.
> >
> > I have stripped it down to the bare chassis to repair metal damage where it was dropped on the side and produced a severe chassis bend. Inspecting the tube socket connections, reveals that at least one of the grid chokes is burnt open. I like the idea of replacing the chokes with resistors expressly because they are easier to source. Can you provide a little more information on replacing them with resistors and what capacitance you have added?
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> > I'm rebuilding the power supply and meter board as a bunch of the components, traces etc are completely burnt due to "golden screw drivers" and cold or missing solder joints. This unit will be quite nice when done, but I want to make sure I do it right.
> >
> > Thanks for your time,
> >
> > Doug - N9XTF
> >
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18069. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 19:04:10 UTC
From: Robert Spooner
Topic: 18022 Message: 18069

Jim,

I am interested in one of the ICs and a socket. Please send me the details.

73,
Bob AD3K

On Jan 4, 2014, at 12:40 AM, Jim Shorney <jshorney@inebraska.com> wrote:

>
> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I can now
> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should work
> in the R-7 as well). This is using the 74S387 device, for which I found a good
> supply of 1994-dated NOS chips at a reasonable cost.
>
> I have made a couple of changes to the original Drake code:
>
> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For most of
> us I imagine this will be enhanced uselessness, but what it will do is allow an
> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not need
> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>
> 60 Meter transmit will also be possible, but a mod to the Digital Control PCB
> will still be needed.
>
> The unused third bit has been programmed to toggle on the three lowest band
> segments for 0.0-1.5 MHz. I figure that clever folks might find this useful to
> switch external VLF accessories. This bit can be custom programmed to switch on
> any band segment or segments by request if someone comes up with another
> interesting idea to make use of it.
>
> The first sample off the burner has been tested in my spare TR-7 and works as
> expected.
>
> For those of you (and I know who you are) who were involved in the recent
> conversation about U9003 that sparked this adventure and who expressed an
> interest in acquiring PROMs for your own needs, please contact me OFF-LIST if
> you are still interested. I will offer a special one-time low price for your
> personal use or spares only. That is, I don't want to see them showing up for
> sale on eBay or other places. After that, capitalism will kick in and I will be
> asking a fair price in hopes of at least eventually recovering what I have
> invested in this project.
>
> (Garey, stop reading now)
>

> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin IC
> sockets available if you want one with your PROM. These are the non-gold
> version.
>
> Again, contact me OFF-LIST.
>
> 73
>
> -Jim
> NU0C
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

18070. 8421 Belden Cable

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 19:40:06 UTC
From: <dcoffman@...>
Topic: 18070 Message: 18070

Do any of the list members have excess Belden 8421 cable to sell. I need to make up some INJ and Carrier OSC cables for my newly acquired twins.

Doug - N9XTF

18071. Re: [DrakeRadio] 8421 Belden Cable

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 20:08:35 UTC
From: Don Cunningham
Topic: 18070 Message: 18071

Doug,
Contact Paul, K0UYA, (elespe@...) he has some and can fix you up.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3658/6986 - Release Date: 01/08/14

18072. Re: [DrakeRadio] 8421 Belden Cable

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-08 21:31:47 UTC
From: Paul Kraemer
Topic: 18070 Message: 18072

I do have new stock
0.60 per foot plus postage
How may I help?
Paul K0UYA

From: dcoffman@...
Sent: Wednesday, January 08, 2014 1:40 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] 8421 Belden Cable

Do any of the list members have excess Belden 8421 cable to sell. I need to make up some INJ and Carrier OSC cables for my newly acquired twins.

Doug - N9XTF

18073. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 03:44:58 UTC
From: Ryan Scott
Topic: 18049 Message: 18073

Hi Group, here's a bit of an update on my amp. I got some time and pulled the Plate Tuning capacitor (that was a job) there were 2 plates top and bottom that were badly arced over and pitted. Luckily, I had another high voltage variable cap that came from a sputtering machine discarded from work that had a 1kW RF amp using a 3-1000. (I work in the semiconductor industry). I parted it out and kept most of the parts, one of the caps had the same construction and same plate dimensions. Anyway, I managed to replace the damaged plates on the capacitor and am putting it all back together. So that takes care of my first 2 questions from the original post.

Doug suggested I put the tube that seemed OK in the other socket. After checking the grid caps and RFC, I did that and applied HV, all was OK. That was a good suggestion that I did not think of, Thank you.

So now I need to re-install the cap, clean up, and find a pair of 3-500z's to bring this girl back to life.

So at this point, I'm wondering if anyone has tested an L4 with only one tube, or is this a bad idea?

Thanks,
Ryan N7QJ

On Wednesday, January 8, 2014 4:45 AM, "dcoffman@..." <dcoffman@pdswireless.com> wrote:

Ryan,

When you placed the tube in the socket that did not pop the glitch resistor, did you place it in the same socket that popped the glitch resistor?

Did you leave the HV line disconnected and attempt to power the amp on just to light the filaments? The filaments will not provide enough heat to anywhere begin to getter the tubes. If a DVMM shows infinity between the grids and plate, that doesn't mean much at high voltage. You may have a short that would only show up on high voltage. I imagine that you could megger the tubes, checking the "non popping one against the popping one." I would first ensure that you are placing the tubes in the same socket to ensure you don't have some failed component on the tube socket.

When you get the thing running, I would only apply a carrier for a short burst, nothing long and tune up as quickly as possible.

Do you know anyone close that has a known good set of tubes or an amp that you can test your tubes in?

I have heard of some that have run the amplifier with one tube. It will tune and load completely different than if two tubes were installed. I would think it a worthy experiment. I would first closely inspect the wiring and components around the tube sockets. If you have placed the suspected bad tube in the same socket every time, the socket, wiring and its components may very well be at issue rather than the tube.

Hopefully Evan will chime in shortly.

18074. RE: L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 04:29:42 UTC
From: <dcoffman@...>
Topic: 18049 Message: 18074

Ryan,

W8JI
05-12-2011, 01:31 PM
The only problems from running one tube are the filament voltage really goes a bit too high, the input SWR goes up, and it is easy to overdrive the amp.

If you don't run it too long that way and watch what you are doing, and don't let the unused anode cap hit anything, everything will be OK temporary. Just remember you are probably running up closer to 6 volts on the 5 volt filament of the single tube.

73 Tom

Ryan,

I found the above text on a QRZ topic about this discussion...
http://forums.qrz.com/archive/index.php/t-296776.html
http://forums.qrz.com/archive/index.php/t-296776.html

18075. Re: [DrakeRadio] L4-B and 3-500Z

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 05:54:44 UTC
From: Evan Rolek
Topic: 18049 Message: 18075

Ryan,

I have "tested" an L4B with just one tube on a couple of occasions over the years, as well as once with an L7, but not intentionally, hi hi. It happened due to desoldering of a filament lead in one instance and open filaments in the others. Interestingly, the amps did load up but capacitor settings were "off" and tuning was not as smooth. It was a lot easier to see a darkened tube with the L4B's perforated cabinet although I was given a hint with the L7 since it was on a shelf where I could see the glow from the tube(s) through the air inlet on the bottom. Amps basically worked, with reduced output, and on-the-air reports indicated things sounded fine. However, I would not recommend doing this intentionally except for very brief periods. Having a single tube failure, due to an open filament or desoldered filament pin, can be problematic if one tunes the amp for the typical output power, plate current, grid current, etc. since it will be the single operational tube that is taking an excessive load.

In addition to what has been said previously, there is a nit about running the L4/L4B with only one tube installed. With one socket empty, there might be slightly less air flow and cooling to the installed tube due to the lower back pressure from the socket lacking a tube, thus allowing the air to "find the path of least resistence". Not sure whether this is an issue or not, I lack a background in thermodynamics and dynamics of air flow.

As to the grid grounding RF chokes, they are indeed difficult to find. My supply is almost diminished and what I generally do as an alternative to replacing those chokes (due to a short to ground situation) is that I remove each of the grid chokes. Then, I install a 33 ohm 1/2 watt carbon resistor from each grid pin to ground. I leave the mica/disc capacitors in place. This results in using slightly lower driving power for a given value of grid current and it still enables some degree of protection, in addition to the 0.82 ohm safety resistor in the power supply, should there be a plate to grid short. Many designs, including those from Eimac, show the grids being grounded directly; this further reduces drive power needed but I like a little extra safety measure so I don't ground the grids directly.

Please keep us informed so we all can learn.

73,

Evan, K9SQG

-----Original Message-----
From: Ryan Scott <tweeker42000@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Jan 8, 2014 10:48 pm
Subject: Re: [DrakeRadio] L4-B and 3-500Z

Hi Group, here's a bit of an update on my amp. I got some time and pulled the Plate Tuning capacitor (that was a job) there were 2 plates top and bottom that were badly arced over and pitted. Luckily, I had another high voltage variable cap that came from a sputtering

machine discarded from work that had a 1kW RF amp using a 3-1000. (I work in the semiconductor industry). I parted it out and kept most of the parts, one of the caps had the same construction and same plate dimensions. Anyway, I managed to replace the damaged plates on the capacitor and am putting it all back together. So that takes care of my first 2 questions from the original post.

Doug suggested I put the tube that seemed OK in the other socket. After checking the grid caps and RFC, I did that and applied HV, all was OK. That was a good suggestion that I did not think of, Thank you.

So now I need to re-install the cap, clean up, and find a pair of 3-500z's to bring this girl back to life.

So at this point, I'm wondering if anyone has tested an L4 with only one tube, or is this a bad idea?

Thanks,
Ryan N7QJ

On Wednesday, January 8, 2014 4:45 AM, "dcof fman@..." <dcoffman@...> wrote:

Ryan,

When you placed the tube in the socket that did not pop the glitch resistor, did you place it in the same socket that popped the glitch resistor?

Did you leave the HV line disconnected and attempt to power the amp on just to light the filaments? The filaments will not provide enough heat to anywhere begin to getter the tubes. If a DVMM shows infinity between the grids and plate, that doesn't mean much at high voltage. You may have a short that would only show up on high voltage. I imagine that you could megger the tubes, checking the "non popping one against the popping one." I would first ensure that you are placing the tubes in the same socket to ensure you don't have some failed component on the tube socket.

When you get the thing running, I would only apply a carrier for a short burst, nothing long and tune up as quickly as possible.

Do you know anyone close that has a known good set of tubes or an amp that you can test your tubes in?

I have heard of some that have run the amplifier with one tube. It will tune and load completely different than if two tubes were installed. I would think it a worthy experiment. I would first closely inspect the wiring and components around the tube sockets. If you have placed the suspected bad tube in the same socket every time, the socket, wiring and its components may very well be at issue rather than the tube.

Hopefully Evan will chime in shortly.

18076. TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 06:13:46 UTC
From: k7mks@...
Topic: 18076 Message: 18076

I looking for 3 NOS/NIB or very good tested 6JB6 tubes. I prefer Sylvania but other mfrs (ie, GE, RCA) will be appropriate. If you have a favorite source I'd be interested.

Thank you,

Joe k7mks

18077. RE: 8421 Belden Cable

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 11:31:08 UTC
From: <gregory.beat@...>
Topic: 18070 Message: 18077

Coaxial Audio Connecting Cable | 25 AWG Stranded (7x33) conductor - (3) TC - (4) TCCS - FPE insulation - tinned copper spiral wrapped shield (86% coverage) - PVC jacket.
Specifications: # of Coax.: 1 AWG: 25 Stranding: 7x33 Conductor Material: TC/TCCS - Tinned Copper.

http://www.spectrumaudio.com/belden-8421-by-the-foot.html

Prices, by the foot, vary widely. Spectrum Audio (above) sells for $1.99/foot, when sold by the foot.
Mouser sells by 250 foot roll, and does not normally stock.

w9gb

18078. Re: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 15:22:12 UTC
From: R. Eric Sluder-W9WLW
Topic: 18076 Message: 18078

RF Parts sells a set of three tubes that have been matched. They are not Sylvania though...

73

- R. Eric Sluder

W9WLW

18079. Re: [DrakeRadio] Re: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 15:51:55 UTC
From: k7mks@...
Topic: 18076 Message: 18079

Thank you

----- Original Message -----

From: "R. Eric Sluder-W9WLW" <resluder@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, January 9, 2014 7:22:12 AM
Subject: [DrakeRadio] Re: TR-4C 6JB6 Tubes

RF Parts sells a set of three tubes that have been matched. They are not Sylvania though...

73

- R. Eric Sluder

W9WLW

18080. Re: [DrakeRadio] R4 FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 16:41:46 UTC
From: Chgypsy@...
Topic: 18080 Message: 18080

Hi All,
Sold pending receipt of funds. Carl

Chgypsy@... writes:

Hi to the group,

For sale Drake R4 sn: 270 with original manual. It is fully functional
and has six aux. xtals. The power supply cap has been replaced with a
"2bradioparts" unit. (_www.2bradioparts.com_ (http://www.2bradioparts.com/))
The paint is not original. Non smoke environment.
Also an MS4 speaker, cabinet was also repainted.

Receiver & speaker package $200 plus shipping from 45432. Please respond
off list. 73's Carl WD8NHK _Chgypsy@..._ (mailto:Chgypsy@...)

18081. Re: [DrakeRadio] TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 16:49:17 UTC
From: Dan Galligan
Topic: 18076 Message: 18081

Joe,
I recently purchased a matched trio, from RF Parts. I think they had more. These are made for RCA, by Sylvania.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

> On Jan 9, 2014, at 0:13, k7mks@... wrote:
>
>
>
>
> I looking for 3 NOS/NIB or very good tested 6JB6 tubes. I prefer Sylvania but other mfrs (ie, GE, RCA) will be appropriate. If you have a favorite source I'd be interested.
>
> Thank you,
>
> Joe k7mks
>
>
>

18082. Re: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-09 18:56:07 UTC
From: Ed Barley
Topic: 18076 Message: 18082

Hello Group,

I reciently put my T4XC and R4C back on the air after being off the air for a bit. They are early serial numbers. The original finals were still in the T4XC, and were just a little weak. So purchased a pair of matched GE 6JB6's from RF parts. They neutrialized very well with no padding. Well after about a couple of times on the air, one of them must have had a grid problem. The one tube blew up the grid resistor, and the 650VDC AC3 diodes. RF parts was great, and did a RMA on both tubes, and sent me a new matched pair. I guess after 40-50 years sitting in a box they do have problems. Good news, it only took a few bucks to get the T4XC going again. This is the only problem it has had since 1973 or so.

Regards,
Ed WA6WGS

--- In DrakeRadio@yahoogroups.com, Dan Galligan <w3rxo@...> wrote:
>
> Joe,
> I recently purchased a matched trio, from RF Parts. I think they had more. These are made for RCA, by Sylvania.
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> "If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
> Merle Haggard
>
>
> Sent from my iPad.
>
> > On Jan 9, 2014, at 0:13, k7mks@... wrote:
> > >
> > >
> > >
> > >
> > > I looking for 3 NOS/NIB or very good tested 6JB6 tubes. I prefer Sylvania but other mfrs (ie, GE, RCA) will be appropriate. If you have a favorite source I'd be interested.
> > >
> > > Thank you,
> > >
> > > Joe k7mks
> > >
> > >

> >
>

18083. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 05:28:07 UTC
From: Jim Shorney
Topic: 18022 Message: 18083

OK, you're on the list. I'll get back to you when I get shipping figured out.

73

-Jim
NU0C

On Wed, 8 Jan 2014 14:04:10 -0500, Robert Spooner wrote:

>Jim,
>
>I am interested in one of the ICs and a socket. Please send me the details.
>
>73,
>Bob AD3K
>
>On Jan 4, 2014, at 12:40 AM, Jim Shorney <jshorney@...> wrote:
>
>>
>> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I can now
>> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should work
>> in the R-7 as well). This is using the 74S387 device, for which I found a good
>> supply of 1994-dated NOS chips at a reasonable cost.
>>
>> I have made a couple of changes to the original Drake code:
>>
>> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For most of
>> us I imagine this will be enhanced uselessness, but what it will do is allow an
>> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not need
>> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
>> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>>
>> 60 Meter transmit will also be possible, but a mod to the Digital Control PCB
>> will still be needed.
>>
>> The unused third bit has been programmed to toggle on the three lowest band
>> segments for 0.0-1.5 MHz. I figure that clever folks might find this useful to
>> switch external VLF accessories. This bit can be custom programmed to switch on
>> any band segment or segments by request if someone comes up with another
>> interesting idea to make use of it.
>>
>> The first sample off the burner has been tested in my spare TR-7 and works as
>> expected.
>>
>> For those of you (and I know who you are) who were involved in the recent
>> conversation about U9003 that sparked this adventure and who expressed an

>> interest in acquiring PROMs for your own needs, please contact me OFF-LIST if
>> you are still interested. I will offer a special one-time low price for your
>> personal use or spares only. That is, I don't want to see them showing up for
>> sale on eBay or other places. After that, capitalism will kick in and I will be
>> asking a fair price in hopes of at least eventually recovering what I have
>> invested in this project.
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>> (Garey, stop reading now)
>>
>> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin IC
>> sockets available if you want one with your PROM. These are the non-gold
>> version.
>>
>> Again, contact me OFF-LIST.
>>
>> 73
>>
>> -Jim
>> NU0C
>> --
>>
>> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>>
>>
>>
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18084. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 05:35:45 UTC
From: Jim Shorney
Topic: 18022 Message: 18084

Yeah, I figured you would want one. :)

People have been coming out of the woodwork wanting these. I need to get shipping supplies and figure out cost after the dust settles down. I'll let you know. I'm selling these way too cheap, my cost works out to under 3 bucks (plus shipping, whatever that will be) per chip including the socket.

I'm guessing that you don't want a socket?

73

-Jim (ducking and running)

On Wed, 08 Jan 2014 09:31:10 -0600, Garey Barrell wrote:

>Hi Jim -
>
>Congratulations!! We've just GOT to win one occasionally!! :-)
>
>I'd like to get one, 'just in case', cause I know that means I'll never need it!
>
>I'm still stuck in Chicago, about a foot of snow, and it's up to almost 3 degrees already this morning..... Only going
>down to -6 tonight, so that's a 10 degree improvement over the last couple of nights.
>
>73, Garey - K4OAH
>Campton Hills, IL
>
>Drake 2-B, 2C/2-NT, A, B,
>C-Line, TR-4, TR-4C/CW/wRIT
>WWW.K4OAH.COM
>
>Jim Shorney wrote:
>> With many thanks to Garey, Bob Macklin, and Jim Pruitt for their help I can now
>> supply replacement U9003 PROMs for the DR-7 board in the TR-7 (they should work
>> in the R-7 as well). This is using the 74S387 device, for which I found a good
>> supply of 1994-dated NOS chips at a reasonable cost.
>>
>> I have made a couple of changes to the original Drake code:
>>
>> WARC bands (30, 17, and 12 Meters) are now flagged as "Ham Bands". For most of
>> us I imagine this will be enhanced uselessness, but what it will do is allow an
>> unmodified TR-7 without an AUX-7 to transmit in the WARC bands. You do not need
>> the allband transmit hack (parent board trace cut) mod, the GW4ALG "almost
>> allband" mod, or my "better allband transmit mod" to use the WARC bands.
>>

>> 60 Meter transmit will also be possible, but a mod to the Digital Control PCB
>> will still be needed.
>>
>> The unused third bit has been programmed to toggle on the three lowest band
>> segments for 0.0-1.5 MHz. I figure that clever folks might find this useful to
>> switch external VLF accessories. This bit can be custom programmed to switch on
>> any band segment or segments by request if someone comes up with another
>> interesting idea to make use of it.
>>
>> The first sample off the burner has been tested in my spare TR-7 and works as
>> expected.
>>
>> For those of you (and I know who you are) who were involved in the recent
>> conversation about U9003 that sparked this adventure and who expressed an
>> interest in acquiring PROMs for your own needs, please contact me OFF-LIST if
>> you are still interested. I will offer a special one-time low price for your
>> personal use or spares only. That is, I don't want to see them showing up for
>> sale on eBay or other places. After that, capitalism will kick in and I will be
>> asking a fair price in hopes of at least eventually recovering what I have
>> invested in this project.
>>
>> (Garey, stop reading now)
>>
>> I also have a limited supply of 16-pin ROBINSON NUGENT ICA163SA milled pin IC
>> sockets available if you want one with your PROM. These are the non-gold
>> version.
>>
>> Again, contact me OFF-LIST.
>>
>> 73
>>
>> -Jim
>> NU0C
>> --
>>
>> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
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>> Yahoo Groups Links
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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18085. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 05:47:12 UTC
From: geoffrey mendelson
Topic: 18022 Message: 18085

On 1/10/2014 7:35 AM, Jim Shorney wrote:
>
>
>
> People have been coming out of the woodwork wanting these. I need to get
> shipping supplies and figure out cost after the dust settles down.
> I'll let you
> know. I'm selling these way too cheap, my cost works out to under 3
> bucks (plus
> shipping, whatever that will be) per chip including the socket.
>

How do you program these chips? I can't find much information about it.
Last week I had to program a 27c256, and found that my 3 year old USB
programmer did not work under 64 bit (which I upgraded to a few months
ago) Windows 7.

The company's website keeps changing names and currently seems to be gone.

Having seen your postings, I figured since I was looking at new burners,
I should buy one that would program them too. The cheapest one I could
find was $750, and that came from the same company as the one I already
had. There was one which people say is well supported, but that one
costs $1500.

All of these prices don't include postage, and in my case, 18% VAT.

In the end, I needed to make a decision and just bought another $50
Chinese programmer from eBay. It does thousands of different chips, but
not these and my needs basically are 27xxx and 27Cxxx chips.

TIA and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18086. Hayseed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 06:11:24 UTC
From: <mark@...>
Topic: 18086 Message: 18086

A lot of you guys know and/or are customers of Tom. Just passing along the message below in case you don't hear from him right away for the next few days.

Mark / K6MJD / San Diego

DEAR VALUED CUSTOMER:
It is with great sadness that we report the passing of Christine Jacobsen, sister of Julie Farland, KDØPHT, on January 6th, 2014. During the next few days, the Hayseed Hamfest employees will be devoting a considerable amount of time to travel, etc. Therefore, we will be closed for the most part, until Monday, January 13th. We thank you for your understanding.

Hayseed Hamfest Co.

18087. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 06:23:08 UTC
From: Jim Shorney
Topic: 18022 Message: 18087

Jeff,

Well, this is not a "new" burner. It is a vintage MCT MOD-EMUP. It does EPROMs, PAL, GAL, bipolar PROMs, and who knows what else, as well as has the ability to test a variety of the CMOS and TTL logic chips of the day. A version was sold in Europe as the "Hi-Lo System" model ALL-03. You could probably find one if you look around. BUT... It requires a proprietary parallel interface card and an old ISA bus computer. I see the MCT box for sale on eBay now and then, but without the interface card it is useless. You may be able to build an interface card from info at http://matthieu.benoit.free.fr/120.htm . The computer also needs to have a standard-speed (not overclocked) ISA bus - one of my former employers tried to run one of these in a fast bus computer and damaged the interface card. I am running mine in the docking station for an old Compaq LTE Lite 4/25C laptop under PC-DOS 7.1. My previous workhorse was an MCT MOD-MEP, which used the same interface card but only handled EPROMs. It was a very reliable box.

You may be able to find something else by looking around the surpuls market or auction sites. Not much call for EPROM burners these days. Just be aware that a lot of them did use proprietary interface cards which frequently went away with the computer they were in, and there is also the issue of software availability. I was fortunate in that the MCT/HiLo programmers seem to have a following and the software plus a lot of other info is archived on the internet.

If you are "stuck" on Windows 7, you are probably alos confined to the high priced market. With older computers being practiaclly throwaway items, at least here in the USA, maintaining a second box with an older operating system for "obsolete" chip programming is the most practical solution.

You should see what I use to program GE Phoenix radios.

73

-Jim
NU0C

n Fri, 10 Jan 2014 07:47:12 +0200, geoffrey mendelson wrote:

>On 1/10/2014 7:35 AM, Jim Shorney wrote:
>>
>>
>>
>> People have been coming out of the woodwork wanting these. I need to get
>> shipping supplies and figure out cost after the dust settles down.
>> I'll let you
>> know. I'm selling these way too cheap, my cost works out to under 3

>> bucks (plus
>> shipping, whatever that will be) per chip including the socket.
>>
>
>How do you program these chips? I can't find much information about it.
>Last week I had to program a 27c256, and found that my 3 year old USB
>programmer did not work under 64 bit (which I upgraded to a few months
>ago) Windows 7.
>
>The company's website keeps changing names and currently seems to be gone.
>
>Having seen your postings, I figured since I was looking at new burners,
>I should buy one that would program them too. The cheapest one I could
>find was $750, and that came from the same company as the one I already
>had. There was one which people say is well supported, but that one
>costs $1500.
>
>All of these prices don't include postage, and in my case, 18% VAT.
>
>In the end, I needed to make a decision and just bought another $50
>Chinese programmer from eBay. It does thousands of different chips, but
>not these and my needs basically are 27xxx and 27Cxxx chips.
>
>TIA and 73,
>
>Geoff.
>
>--
>Geoffrey S. Mendelson 4X1GM/N3OWJ
>Jerusalem Israel.
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18088. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 06:25:46 UTC
From: Jim Shorney
Topic: 18022 Message: 18088

Apologies for spelling our name wrong, Geoff. It's late...

73

-Jim

On Fri, 10 Jan 2014 00:23:08 -0600, Jim Shorney wrote:

>Jeff,

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18089. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 08:18:21 UTC
From: geoffrey mendelson
Topic: 18022 Message: 18089

On 1/10/2014 8:23 AM, Jim Shorney wrote:
>
> Jeff,
>
> Well, this is not a "new" burner. It is a vintage MCT MOD-EMUP. It
> does EPROMs,
> PAL, GAL, bipolar PROMs, and who knows what else, as well as has the
> ability to
> test a variety of the CMOS and TTL logic chips of the day. A version
> was sold
> in Europe as the "Hi-Lo System" model ALL-03. You could probably find
> one if
> you look around. BUT... It requires a proprietary parallel interface
> card and
> an old ISA bus computer. I see the MCT box for sale on eBay now and
> then, but
> without the interface card it is useless. You may be able to build an
> interface
> card from info at http://matthieu.benoit.free.fr/120.htm . The
> computer also
> needs to have a standard-speed (not overclocked) ISA bus - one of my
> former
> employers tried to run one of these in a fast bus computer and damaged the
> interface card. I am running mine in the docking station for an old
> Compaq LTE
> Lite 4/25C laptop under PC-DOS 7.1. My previous workhorse was an MCT
> MOD-MEP,
> which used the same interface card but only handled EPROMs. It was a very
> reliable box.
>
> You may be able to find something else by looking around the surpuls
> market or
> auction sites. Not much call for EPROM burners these days. Just be
> aware that a
> lot of them did use proprietary interface cards which frequently went
> away with
> the computer they were in, and there is also the issue of software
> availability. I was fortunate in that the MCT/HiLo programmers seem to
> have a
> following and the software plus a lot of other info is archived on the
> internet.
>
> If you are "stuck" on Windows 7, you are probably alos confined to the
> high
> priced market. With older computers being practiacly throwaway items,

> at least
> here in the USA, maintaining a second box with an older operating
> system for
> "obsolete" chip programming is the most practical solution.
>
> You should see what I use to program GE Phoenix radios.
>
Thanks, I had something like that and sold it in 1996 when I left the US. I had no clue that almost 20 years later I would need it. It had a ISA interface card, and an external box with a chip socket. In those days it was used to make SUN CDROM drives out of Sony, and updating firmware in modems. I also did some ROMs for a local Motorola dealer, but I never knew what they went into, he just gave me the files and the chips.

As for old computers, the 27cxxx series ROMs I burn are used in old Motorola radios, so I am no stranger to old computers.

Most of what I use for programing the radios are Pentium 200 or similar processors, as that is what works, and the laptops of that era had active displays instead of slow passive LCDs. I have figured out how to run DOS 6.2.2, DOS 7/Windows 95/98 and on the later ones Windows XP. I have sitting on a shelf two Acer 486/66 computers, just in case I need something really slow.

You never know, one of these things may pop up. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18090. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 09:09:44 UTC
From: David Stinson
Topic: 18022 Message: 18090

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
Subject: Re: [DrakeRadio] PROMmania! U9003 cracked!

>
>....I'm selling these way too cheap, my cost works out to under 3 bucks
>(plus
> shipping, whatever that will be) per chip including the socket.

Indeed, you are. Remember your time and effort also have value.
No reasonable person is going to hold a reasonable price against you.
As a "rule of thumb," if you aren't at least doubling your
cash outlay on lower-priced items like these, you're actually
losing on the deal. Another "rule" is that only about 7 of 10
who say they will buy one will actually do so.
I'd pay double your costs and more and count myself very lucky
that someone like you took the risk to invest his
time and capital to address this issue. Thank you!

73 OM DE Dave AB5S

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18091. RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 12:57:37 UTC
From: <w5rkl@...>
Topic: 18076 Message: 18091

Joe,

Also check the 3 individual 6JB6 cathode resistors (3 x 15 ohms 1 watt), meter resistors R13 (usually mounted on the PUSH/PULL meter switch, and the parallel resistor R45 (R45 may be shown as 2 ohms on the schematic).

I recommend using ceramic resistors for the cathode resistors. Mouser sells them under Mouser part number 588-OX-15-E for 92 cents each (15 ohm 1 watt 10%). For best results the cathode resistors should be as close to 15 ohms each as possible.

I also recommend using matched 6JB6s, as mentioned by a responder. Matched pairs of 6JB6s are available at RF Parts.

After replacing the final tubes and cathode resistors you should check the final amplifier's neutralization. If you need to neutralize the final, start on 20 meters first. The plate DIP is much more pronounced on 20 then it is on 10. Once you successfully neutralized the finals on 20 meters, move to 10 meters at 28.8. It should only take a very "slight", emphasis on "slight", tweaking of the neutralizing capacitor on 10 meter to complete the neutralizing task on 10. It's very easy to adjust the neutralizing cap past the "sweet spot" on 10. If you adjust the neutralizing cap too far on 10, start over on 20 and repeat the process.

Also, be very careful, the neutralizing cap screw adjustment has HV on it. Do not allow the screw driver to short the neutralizing cap adjusting screw to the chassis. Use an insulated screw driver to make the adjustment. If you don't have an insulated screw driver, wrap the shaft of the screw driver you plan on using with electrical tape, leaving only the flat blade portion of the screw driver exposed. I use a thin eighth inch wide flat blade screw driver with the shaft covered with electrical tape. The eighth inch wide thin flat blade screw driver is just the right size to fit the neutralizing capacitors screw slot.

The manual says to use the "PUSH/PULL" meter button to monitor RF output during the neutralizing process. I found using an external watt meter much easier (I used a Heathkit HM-102) as it allows you to see both RF output and the PLATE current meter (cathode current) indications at the same time.

73
Mike W5RKL

18092. RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 13:14:17 UTC
From: <w5rkl@...>
Topic: 18076 Message: 18092

Joe,

I forgot the mention you should use a 50 ohm dummy load when neutralizing the final amplifier. The dummy load should have a power rating higher than the TR4's maximum output power. I use a Vectronics VEC-552, 1.5KW dry dummy load. If you don't have a dummy load, MFJ sells a nice 1.5KW dry dummy load, MFJ-264, which has a 150 watts constant key down time of 60 seconds. There is a cool down period that should be followed. For example, at 60 seconds with 150 watts applied to the dummy load, the cool down period is 10 to 20 times the maximum rated key down period, i.e., 10 x 60 = 600 or 10 minutes. If you keep key down periods to less than half the rated period then cool down periods would be less. I found 10 seconds is more than enough time to make the neutralizing adjustments.

73
Mike W5RKL

18093. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 13:24:23 UTC
From: Steve Wedge
Topic: 18076 Message: 18093

And, if you have a scope and are adept at desoldering, you can neutralize the amp very quickly. It involves tuning for a dip in plate current, disconnecting the screen supply (with power off, first, of course!), applying just enough drive to see RF on the scope at 28.8 and tweaking the cap for a null. Just be careful of desoldering and re-soldering that screen lead at the feed-through.

One adjustment, no trial and error. Robert's your mum's brother.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: w5rkl@...
Sent: Friday, January 10, 2014 7:57 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Joe,

Also check the 3 individual 6JB6 cathode resistors (3 x 15 ohms 1 watt), meter resistors R13 (usually mounted on the PUSH/PULL meter switch, and the parallel resistor R45 (R45 may be shown as 2 ohms on the schematic).

I recommend using ceramic resistors for the cathode resistors. Mouser sells them under Mouser part number 588-OX-15-E for 92 cents each (15 ohm 1 watt 10%). For best results the cathode resistors should be as close to 15 ohms each as possible.

I also recommend using matched 6JB6s, as mentioned by a responder. Matched pairs of 6JB6s are available at RF Parts.

After replacing the final tubes and cathode resistors you should check the final amplifier's neutralization. If you need to neutralize the final, start on 20 meters first. The plate DIP is much more pronounced on 20 then it is on 10. Once you successfully neutralized the finals on 20 meters, move to 10 meters at 28.8. It should only take a very "slight", emphasis on "slight", tweaking of the neutralizing capacitor on 10 meter to complete the neutralizing task on 10. It's very easy to adjust the neutralizing cap past the "sweet spot" on 10. If you adjust the neutralizing cap too far on 10, start over on 20 and repeat the process.

Also, be very careful, the neutralizing cap screw adjustment has HV on it. Do not allow the screw driver to short the neutralizing cap adjusting screw to the chassis. Use an insulated screw driver to make the adjustment. If you don't have an insulated screw driver, wrap the shaft of the screw driver you plan on using with electrical tape, leaving only the flat blade portion of the screw driver exposed. I use a thin eighth inch wide flat blade screw

driver with the shaft covered with electrical tape. The eighth inch wide thin flat blade screw driver is just the right size to fit the neutralizing capacitors screw slot.

The manual says to use the "PUSH/PULL" meter button to monitor RF output during the neutralizing process. I found using an external watt meter much easier (I used a Heathkit HM-102) as it allows you to see both RF output and the PLATE current meter (cathode current) indications at the same time.

73

Mike W5RKL

18094. Re: [DrakeRadio] Hayseed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 15:03:51 UTC
From: Bernie
Topic: 18086 Message: 18094

Thank you, Mark, for posting the info. Much appreciated.

Bernie in ND
WDØGMD

----- Original Message -----
From: mark@...
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 10, 2014 12:11 AM
Subject: [DrakeRadio] Hayseed

A lot of you guys know and/or are customers of Tom. Just passing along the message below in case you don't hear from him right away for the next few days.

Mark / K6MJD / San Diego

DEAR VALUED CUSTOMER:
It is with great sadness that we report the passing of Christine Jacobsen, sister of Julie Farland, KDØPHT, on January 6th, 2014. During the next few days, the Hayseed Hamfest employees will be devoting a considerable amount of time to travel, etc. Therefore, we will be closed for the most part, until Monday, January 13th. We thank you for your understanding.

Hayseed Hamfest Co.

18095. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 16:50:27 UTC
From: Richard Knoppow
Topic: 18076 Message: 18095

```
----- Original Message -----
From: <w5rkl@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, January 10, 2014 4:57 AM
Subject: [DrakeRadio] RE: TR-4C 6JB6 Tubes

> Joe,
>
>
> Also check the 3 individual 6JB6 cathode resistors (3 x 15
> ohms 1 watt), meter resistors R13 (usually mounted on the
> PUSH/PULL meter switch, and the parallel resistor R45 (R45
> may be shown as 2 ohms on the schematic).
>
>
> I recommend using ceramic resistors for the cathode
> resistors. Mouser sells them under Mouser part number
> 588-OX-15-E for 92 cents each (15 ohm 1 watt 10%). For
> best results the cathode resistors should be as close to
> 15 ohms each as possible.
>
>
>
> I also recommend using matched 6JB6s, as mentioned by a
> responder. Matched pairs of 6JB6s are available at RF
> Parts.
>
>
> After replacing the final tubes and cathode resistors you
> should check the final amplifier's neutralization. If you
> need to neutralize the final, start on 20 meters first.
> The plate DIP is much more pronounced on 20 then it is on
> 10. Once you successfully neutralized the finals on 20
> meters, move to 10 meters at 28.8. It should only take a
> very "slight", emphasis on "slight", tweaking of the
> neutralizing capacitor on 10 meter to complete the
> neutralizing task on 10. It's very easy to adjust the
> neutralizing cap past the "sweet spot" on 10. If you
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>
> Also, be very careful, the neutralizing cap screw
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> short the neutralizing cap adjusting screw to the chassis.
```

> Use an insulated screw driver to make the adjustment. If
> you don't have an insulated screw driver, wrap the shaft
> of the screw driver you plan on using with electrical
> tape, leaving only the flat blade portion of the screw
> driver exposed. I use a thin eighth inch wide flat blade
> screw driver with the shaft covered with electrical tape.
> The eighth inch wide thin flat blade screw driver is just
> the right size to fit the neutralizing capacitors screw
> slot.
>
>
>
> The manual says to use the "PUSH/PULL" meter button to
> monitor RF output during the neutralizing process. I found
> using an external watt meter much easier (I used a
> Heathkit HM-102) as it allows you to see both RF output
> and the PLATE current meter (cathode current) indications
> at the same time.
>
>
>
> 73
> Mike W5RKL
>
A good way to make a neutralizing tool is to grind
or file a screw driver tip on a length of plastic rod.
Suitable rod can be gotten from stores that sell plastic
goods, maybe even hobby shops. The tool will also tend to
introduce less stray capacitance. Do NOT use modern
adjusting tools because the plastic in most has been made
conductive to prevent static build-up. The resistance is
fairly high but I've gotten shocks from these tools even
with lower voltage than appears on the plates of the tubes.
The method I use on my T4XB and TR-4 is a slight
variation of the handbook method: I find the approximate
neutralization setting on 20 meters. Then go to 10 meters
and tune up with low drive and careful tuning. The reason
for neutralizing on the lower band first is to avoid getting
a combination of plate tuning and loading settings which
cause the finals to oscillate. Once I find the correct
setting at 10 meters I alternate the tuning, load and
neutralizing adjustment for maximum output. That gets the
neutralizing adjustment right on the money. I agree than an
external power meter is, if not absolutely necessary, a
great convenience.
I am not sure what is being matched with matched
tubes. I think the main thing for parallel operation is to
make sure both tubes draw about the same amount of current.
I made an adaptor for my TV-7 tube tester to take
compactrons and check the finals for Gm. This seems to work

and agree closely with measured cathode current. I also found that the Gm of unused tubes of the same brand seem to match pretty closely so I am not at all sure how necessary it is to pay a substantial premium for "matched" sets. The other thing is that one presumably wants tubes with similar interelectrode capacitances. Not sure how much variation there is in production tubes although different brands with different structures may vary. This can be measured but needs special instrumentation like a General Radio vacuum tube bridge. If a set of tubes neutralizes OK all this is just of academic interest.

18096. Drake radio items for sale excess to my needs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 17:12:04 UTC
From: <dcoffman@...>
Topic: 18096 Message: 18096

Note, this may be a repost; I posted this morning but it has not shown up on the Yahoo Group.

I have the following Drake items for sale as they are excess to my needs;

1 ea Drake TR-4. Fully aligned, new finals, new power switch installed on the AF/RF gain pot, new Ohmite screen and grid resistors, installed TR-4C audio board, new multi-section Hayseed Hams capacitor installed. The front panel is very nice, the case could use new paint and the top of the chassis is rough; it needs a good cleaning and has pitting.

2 ea Drake AC-3 power supplies. They both work but should be re-capped. One of the units someone replaced one of the caps with an axial lead cap and the cover and strain relief is missing from the multi-conductor plug.

Contact me off the list at dcoffman@pdswireless mailto:dcoffman@pdswireless if interested.

Regards,

Doug - N9XTF

18097. Drake Gear For Sale Excess to my needs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 18:32:31 UTC
From: <dcoffman@...>
Topic: 18097 Message: 18097

I have the following Drake gear for sale that is excess to my needs;

2 ea AC-3 Power Supplies. Both work however recapping is suggested. Someone has replaced one of the caps with an axial lead unit.

1 ea TR-4 fully aligned with new final tubes. Power switch has been replaced with a new switch on the back of the AF, RF gain pot. Grid and Screen Resistors have been replaced with Ohmite OX OY versions. The multi section cap has been replaced with Hayseed Hamfest's cap. The face is very nice but the cabinet could use a new paint job. The top of the chassis needs to be cleaned and is fairly rough.

Contact me off the list if interested at dcoffman@pdswireless.com
mailto:dcoffman@pdswireless.com

Regards,

Doug Coffman
N9XTF

18098. New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-10 23:09:46 UTC
From: <cdorn@...>
Topic: 2736 Message: 18098

Been lurking for awhile, and thought I'd join. Been around as a ham for about 20 years, and have had a few Drake sets over the years. Presently enjoying a Drake SW-4A that suits my needs. I have a couple questions. This set has not been recapped. It is a later production serial number, probably around 1973. I don't detect any serious hum or issues. What is the general consensus regarding caps on these sets? Replace as a matter of preventive maintenance, or repair as needed? Also hoping that someone out there may have an excess MS-4 speaker that they would be willing to sell. Can't seem to find one up here in Canada yet, and the EBAY ones seem complicated to obtain with Global Shipping Program issues an the like.

Thanks,
Chris VE6RDC (VE6IY)

18099. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 01:34:43 UTC
From: Bobby B
Topic: 2736 Message: 18099

I have a complete Drake Station for sale with an MS-4

T-4XC and R-4C RX has 3 filters installed...

D-104 mic and all cables.....

Excellent condition...

----- Original Message -----
From: cdorn@...
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 10, 2014 6:09 PM
Subject: [DrakeRadio] New to Group

Been lurking for awhile, and thought I'd join. Been around as a ham for about 20 years, and have had a few Drake sets over the years. Presently enjoying a Drake SW-4A that suits my needs. I have a couple questions. This set has not been recapped. It is a later production serial number, probably around 1973. I don't detect any serious hum or issues. What is the general consensus regarding caps on these sets? Replace as a matter of preventive maintenance, or repair as needed? Also hoping that someone out there may have an excess MS-4 speaker that they would be willing to sell. Can't seem to find one up here in Canada yet, and the EBAY ones seem complicated to obtain with Global Shipping Program issues an the like.

Thanks,
Chris VE6RDC (VE6IY)

18100. RE: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 01:45:42 UTC
From: Doug Coffman
Topic: 2736 Message: 18100

Bobby B,

If you would, send me the information of the gear and prices to dcoffman@...
<mailto:dcoffman@...>

73,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Bobby B
Sent: Friday, January 10, 2014 8:35 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] New to Group

☐

I have a complete Drake Station for sale with an MS-4

T-4XC and R-4C RX has 3 filters installed...

D-104 mic and all cables.....

Excellent condition...

----- Original Message -----

From: cdorn@... <mailto:cdorn@...>

To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>

Sent: Friday, January 10, 2014 6:09 PM

Subject: [DrakeRadio] New to Group

Been lurking for awhile, and thought I'd join. Been around as a ham for about 20 years, and have had a few Drake sets over the years. Presently enjoying a Drake SW-4A that suits my needs. I have a couple questions. This set has not been recapped. It is a later production serial number, probably around 1973. I don't detect any serious hum or issues. What is the general consensus regarding caps on these sets? Replace as a matter of preventive maintenance, or repair as needed? Also hoping that someone out there may have an excess MS-4 speaker that they would be willing to sell. Can't seem to find one up here in Canada yet, and the EBAY ones seem complicated to obtain with Global Shipping Program issues an the like.

Thanks,
Chris VE6RDC (VE6IY)

PDSWireless

Quick and Simple Internet Access
http://www.pdswireless.com

18101. Re: [DrakeRadio] "C" System For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 01:47:20 UTC
From: Joe - W7RKN
Topic: 18101 Message: 18101

Hi Bob....

No objection to the offer to sell...but..it would be helpful if you included your call and location of the equipment. And..even though a reply here will post to the group, contact information is suggested.

One last request....when changing the subject matter of someone else's post, it is a good idea to also change the subject heading as well.

Thanks for understanding!

Joe Wolfe - W7RKN
Moderator

----- Original Message -----
From: Bobby B
Subject: Re: [DrakeRadio] New to Group

☐

I have a complete Drake Station for sale with an MS-4

T-4XC and R-4C RX has 3 filters installed...

D-104 mic and all cables.....

Excellent condition...

18102. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 01:47:40 UTC
From: Steve Wedge
Topic: 2736 Message: 18102

Chris -

First of all, welcome to our family!

My philosophy is that, if you're using the receiver fairly regularly, to not worry about the caps. There were solid-state diodes used after the transformer. Therefore, if you're not hearing excessive hum now and the cap was going to fail, the diodes would fail in an overcurrent situation.

Having said that, it's good PM to replace the caps when you get a chance. There are a number of providers of original-style replacements, which would afford you a minimum number of changes. Hayseed Hamfest is one, and 2B radio parts is another. You can also always go about it freestyle and sneak new caps under the chassis. Just be certain that you have disconnected the original ones, first.

HTH,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: cdorn@...
Sent: Friday, January 10, 2014 6:09 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] New to Group

Been lurking for awhile, and thought I'd join. Been around as a ham for about 20 years, and have had a few Drake sets over the years. Presently enjoying a Drake SW-4A that suits my needs. I have a couple questions. This set has not been recapped. It is a later production serial number, probably around 1973. I don't detect any serious hum or issues. What is the general consensus regarding caps on these sets? Replace as a matter of preventive maintenance, or repair as needed? Also hoping that someone out there may have an excess MS-4 speaker that they would be willing to sell. Can't seem to find one up here in Canada yet, and the EBAY ones seem complicated to obtain with Global Shipping Program issues an the like.

Thanks,
Chris VE6RDC (VE6IY)

18103. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:31:48 UTC
From: <cdorn@...>
Topic: 2736 Message: 18103

Thanks for the welcome Steve. I'll likely just use the set for now, and keep an eye (or ear) on things. Seems like the cap kits available are oriented to the 2 and 4 line amateur rigs. The SW-4A uses a different cap configuration, but it shouldn't be difficult to recap under the chassis. I've done a few sets that way, most notably a German hifi set recently that was a bit of challenge, so I don't expect the Drake to be too bad. And to Billy - thanks for the offer on the complete station, but I'm just looking for an MS-4 speaker for my receiver at this time.

Chris VE6RDC

18104. Re: [DrakeRadio] "C" System For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:33:37 UTC
From: bobbyb@frontiernet.net
Topic: 18101 Message: 18104

Joe

Acknowledged.....

Thank You for the help......

PS my contact info s/b added to the bottom of my posts automatically. I am not sure why it did not make it on my reply to the original poster looking for the MS-4. I am checking into it....

--
K3RJB
Bobby B
Hangar 11
www.hangar11.com
845-926-1959

From: Joe - W7RKN <w7rkn.7@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 10, 2014 8:47 PM
Subject: Re: [DrakeRadio] "C" System For Sale

☐
Hi Bob....

No objection to the offer to sell...but..it would
be helpful if you included your call and location of the equipment.
And..even though a reply here will post to the group, contact information is
suggested.

One last request....when changing the subject
matter of someone else's post, it is a good idea to also change the subject
heading as well.

Thanks for understanding!

Joe Wolfe - W7RKN
Moderator

----- Original Message -----
From: Bobby B
>Subject: Re: [DrakeRadio] New to Group
>
>☐
>I have a complete Drake Station for sale with an MS-4
>

>T-4XC and R-4C   RX has 3 filters installed...
>
>D-104 mic and all cables.....
>
>Excellent condition...
>

18105. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:36:39 UTC
From: <cdorn@...>
Topic: 2736 Message: 18105

Bobby - thanks for the offer on the station. Just looking for the MS-4 right now. Chris.

18106. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:42:11 UTC
From: L L bahr
Topic: 2736 Message: 18106

Hayseed Hamfest will make a cap for you to fit in your radio. I have used them and they are nice replacement caps. I have also re-stuffed old can caps too. Cost is much less but it takes time. (Cut the can open at the flair with a hack saw or a Dremmel Tool, if you have one, gu t the old caps out, replace with new radial lead caps, place cover back on the cap base, tack with 5 min epoxy in three places. When firm, run a bead of aluminum colored silicon rubber over the concave flair and then wipe a nice concave flair with your finger. DONE!) . The finished product will look near perfect and the cost will be around $7.00. As I sa id, Hayseed Hamfest is good too. In fact I had them ship me a couple TR-4 caps today. They do all the work for you!

Lee, w0vt

18107. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:45:31 UTC
From: Steve Wedge
Topic: 2736 Message: 18107

I've worked on an SW-4 in the past. Given that they were produced concurrently with the 4-Line, there may well be a replacement available. I would first look at the equivalency of the SW-4 to the R-4A. That was a 4-unit cap.

Check with Hayseed Hamfest. If it's not equivalent to any of the other 4-line, it's probably close.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: cdorn@...
Sent: Friday, January 10, 2014 9:31 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] New to Group

Thanks for the welcome Steve. I'll likely just use the set for now, and keep an eye (or ear) on things. Seems like the cap kits available are oriented to the 2 and 4 line amateur rigs. The SW-4A uses a different cap configuration, but it shouldn't be difficult to recap under the chassis. I've done a few sets that way, most notably a German hifi set recently that was a bit of challenge, so I don't expect the Drake to be too bad. And to Billy - thanks for the offer on the complete station, but I'm just looking for an MS-4 speaker for my receiver at this time.

Chris VE6RDC

18108. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 02:54:02 UTC
From: L L bahr
Topic: 2736 Message: 18108

Tell Hayseed what you want made up and they will do it for you. They do special orders!
It doesn't have to be the same as used in some other piece of Drake equipment.

Lee

18109. Re: [DrakeRadio] PROMmania! U9003 cracked!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 04:24:52 UTC
From: Jim Shorney
Topic: 18022 Message: 18109

Thanks for the comments, Dave. The price will go up. The introductory low price was my way of giving back to this group and the people on it who are so helpful to myself and others. I had planned on a higher price once I get these folks taken care of. This is a private offer to this list, and I will cut it off soon.

73

-Jim
NU0C

On Fri, 10 Jan 2014 03:09:44 -0600, David Stinson wrote:

>----- Original Message -----
>From: "Jim Shorney" <jshorney@...>
>Subject: Re: [DrakeRadio] PROMmania! U9003 cracked!
>
>
>>
>>....I'm selling these way too cheap, my cost works out to under 3 bucks
>>(plus
>> shipping, whatever that will be) per chip including the socket.
>
>Indeed, you are. Remember your time and effort also have value.
>No reasonable person is going to hold a reasonable price against you.
>As a "rule of thumb," if you aren't at least doubling your
>cash outlay on lower-priced items like these, you're actually
>losing on the deal. Another "rule" is that only about 7 of 10
>who say they will buy one will actually do so.
>I'd pay double your costs and more and count myself very lucky
>that someone like you took the risk to invest his
>time and capital to address this issue. Thank you!
>
>73 OM DE Dave AB5S
>
>
>---
>This email is free from viruses and malware because avast! Antivirus protection is active.
>http://www.avast.com
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,

IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18110. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 04:55:09 UTC
From: Terry Taylor
Topic: 2736 Message: 18110

Hi, Chris

I have a couple of extra MS-4 speakers. I'll go over to my storage shed Sunday and get them out if you are still looking.

73
Terry
N7BDL

Sent from my iPad

On Jan 10, 2014, at 4:09 PM, <cdorn@...> wrote:

>
>
> Been lurking for awhile, and thought I'd join. Been around as a ham for about 20 years, and have had a few Drake sets over the years. Presently enjoying a Drake SW-4A that suits my needs. I have a couple questions. This set has not been recapped. It is a later production serial number, probably around 1973. I don't detect any serious hum or issues. What is the general consensus regarding caps on these sets? Replace as a matter of preventive maintenance, or repair as needed? Also hoping that someone out there may have an excess MS-4 speaker that they would be willing to sell. Can't seem to find one up here in Canada yet, and the EBAY ones seem complicated to obtain with Global Shipping Program issues an the like.
>
> Thanks,
> Chris VE6RDC (VE6IY)
>
>

18111. RE: New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 15:55:27 UTC
From: <cdorn@...>
Topic: 2736 Message: 18111

Hi Terry. That would be great. I'll let you know if anything else comes up in the meantime.

Chris

18112. Re: [DrakeRadio] New to Group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-11 16:52:53 UTC
From: Richard Knoppow
Topic: 2736 Message: 18112

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, January 10, 2014 5:47 PM
Subject: Re: [DrakeRadio] New to Group

Chris -

First of all, welcome to our family!

My philosophy is that, if you're using the receiver fairly regularly, to not worry about the caps. There were solid-state diodes used after the transformer. Therefore, if you're not hearing excessive hum now and the cap was going to fail, the diodes would fail in an overcurrent situation.

Having said that, it's good PM to replace the caps when you get a chance. There are a number of providers of original-style replacements, which would afford you a minimum number of changes. Hayseed Hamfest is one, and 2B radio parts is another. You can also always go about it freestyle and sneak new caps under the chassis. Just be certain that you have disconnected the original ones, first.

HTH,

Steve Wedge, W1ES/4

I don't know about the short wave receiver but the caps in my R4 and T4 are film caps or ceramics, not paper. I did have to replace a couple of electrolytics but neither plastic film or ceramic caps go bad with age the way paper caps do. The limited life of paper caps was well known when they were new, many engineering books will have derating data on cap lifetime. The higher the cap voltage rating in comparison to the voltage on it the longer they would last. In any case, Drake stuff does not seem to require the kind of shotgunning of all caps they way older equipment does.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18113. W6ISQ (SK)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 15:30:58 UTC
From: Garey Barrell
Topic: 18113 Message: 18113

R.I.P. Jack. Truly one of Amateur Radio's GIANTS...

"Boy! Love them smooth rippling dits. Wow!"

73, Garey - K4OAH
Glen Allen, VA

<<<<

"John G. Troster, W6ISQ, became a Silent Key on January 11, 2014. His wife of 65 years, Marguerite (KC6NFE), was at
his bedside when he passed away.
Jack, along with Vince Chinn K6KQN (now W6EE), Lee Shaklee W6BH (SK), and Don Schliesser K6RV, founded the Northern
California DX Foundation in October, 1972. Jack served as an NCDXF Board member for 26 years before stepping down
in July, 1998. He was the Foundation’s third President, serving from 1975 until 1986.
Jack had an enormous passion for amateur radio. He was first licensed in September, 1935, at age 14, as W2ISQ in
Yonkers , New York . He received his W6ISQ callsign when he moved to California shortly after the end of World War
II. Among Jack’s many radio accomplishments and awards were DXCC #1 Honor Roll on the Mixed, CW and SSB modes;
5B-DXCC; 5B-WAS (Certificate #4); and USA Counties Award (for working all 3,076 USA counties, which he did
completely on CW!). Jack was a member of the FOC and the A1 Operators Club; he served as president of both the
Northern California DX Club and the Northern California Contest Club; he was a Contributing Editor of QST magazine
and was the Pacific Division’s representative on the ARRL DX Advisory Committee. He was a director of the Quarter
Century Wireless Association and for years wrote the monthly QCWA column published in World Radio News. Jack was
named NCDXC’s DXer of the Year, and in 1988 he was inducted as the 27th member of the CQ DX Hall of Fame.
As impressive as were all his radio achievements, even more so was Jack himself. He was the consummate gentleman.
He was warm and welcoming to everyone he met, and many amateur radio operators today enjoy the hobby as a direct
result of his nurturing, encouragement and enthusiasm. Jack was known for his quick wit and encyclopedic knowledge
of amateur radio history. His passing leaves a huge void. Amateur radio has lost one of its giants."

18114. Re: [DrakeRadio] W6ISQ (SK)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 15:43:49 UTC
From: Al Parker
Topic: 18113 Message: 18114

Wasn't it Jack who did the "Jeeves" cartoons in QST?
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/14/2014 10:30 AM, Garey Barrell wrote:
> R.I.P. Jack. Truly one of Amateur Radio's GIANTS...
>
> "Boy! Love them smooth rippling dits. Wow!"
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> <<<<

18115. Re: [DrakeRadio] W6ISQ (SK)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 15:56:33 UTC
From: Eddy Swynar
Topic: 18113 Message: 18115

On 2014-01-14, at 10:43 AM, Al Parker wrote:

> Wasn't it Jack who did the "Jeeves" cartoons in QST?
> 73,
>
> Al, W8UT

No Al,

I believe it was a fellow named Phil Gildersleeve, who has long since become an SK...

Eddy_._,___

18116. Re: [DrakeRadio] W6ISQ (SK)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 16:01:03 UTC
From: Garey Barrell
Topic: 18113 Message: 18116

Hi Al -

No, that was Phil Gildersleeve 'Gil', W1CJD. Most of Jack's stories had a 'Gil' cartoon included. Gil started as a
'filler' in QST. Someone would give him a brief 'idea' and he'd come back with an appropriate cartoon reflecting that
idea. Jeeves was associated with the DX Column run for so many years by Byron Goodman, W1DX.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Al Parker wrote:
> Wasn't it Jack who did the "Jeeves" cartoons in QST?
> 73,
>
> Al, W8UT
> www.boatanchors.org
> www.hammarlund.info
>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 1/14/2014 10:30 AM, Garey Barrell wrote:
>> R.I.P. Jack. Truly one of Amateur Radio's GIANTS...
>>
>> "Boy! Love them smooth rippling dits. Wow!"
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> <<<<
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

18117. FS: Unique Drake Service Supplement CDs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 17:38:54 UTC
From: Garey Barrell
Topic: 993 Message: 18117

Here is the information that Drake left out of their manuals!

Unique supplemental service information CDs available for the Drake A, B and C Lines, 2-B, 2-C / 2-NT, TR-4, and
TR-4C/Cw/CwRIT.

High resolution color photos of the under chassis and individual PC boards of each unit, with all parts identified and
keyed to a parts list make it easy to locate any component. No more trying to trace wires through bundles, etc. This
information is not available elsewhere and really makes a difference in servicing these units.

These CDs are not JUST scans of the original manuals that were included with the equipment when new. High resolution
scans of the original manuals ARE on the CDs, along with scans of manuals for associated equipment such as the C-4,
FS-4, MN2000, L-4B, W-4, etc.

Samples of these pages (at reduced resolution) and purchase information are at <www.k4oah.com>.

--
73, Garey - K4OAH
Glen Allen, VA

18118. DRAKE PRN-1000 RADIO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 18:33:38 UTC
From: <wa0urj@...>
Topic: 18118 Message: 18118

I own a Drake PRN-1000 shortwave receiver and have misplaced my copy.
This was made by R.L. Drake for Chuck Harder of People's Radio Network.
It is similar to the SW-1. If anyone has a manual they could scan in and e-mail
to me I would appreciate it.

Thank You.

David Reeder

18119. Re: [DrakeRadio] DRAKE PRN-1000 RADIO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-14 21:57:56 UTC
From: Jim Shorney
Topic: 18118 Message: 18119

David,

The SW-1 manual is in the group file section.

73

-Jim
NU0C

On 14 Jan 2014 10:33:38 -0800, wa0urj@... wrote:

>I own a Drake PRN-1000 shortwave receiver and have misplaced my copy.
>
>This was made by R.L. Drake for Chuck Harder of People's Radio Network.
>
>It is similar to the SW-1. If anyone has a manual they could scan in and e-mail
>
>to me I would appreciate it.
>
>
>
>
>Thank You.
>
>
>
>
>David Reeder

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18120. RV-4C NOT WORKING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 00:32:09 UTC
From: <dcoffman@...>
Topic: 18120 Message: 18120

My RV-4C stopped working so I have taken it out of the box. Underneath, R15 has disintegrated. It has been replaced before by a previous owner and an attempt has been made to repair the trace it was soldered to. I have no way to tell what value was present as the resistor was completely burnt up; it does appear to be a 2W carbon comp.

When I look at the schematic enclosed with Garry's CD's, it calls for a 15K Ohm 5 1/4 watt resistor. The trace that is on the board is very fine, did they really call for a 5 1/4 watt or is this a type O?

Thanks,

Doug - N9XTF

18121. With deep sadness.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 01:23:18 UTC
From: Dan Galligan
Topic: 18121 Message: 18121

With deep sadness, I think, I am going to put my L4B up for sale. I lusted for one, for more than 35 years, since I saw my first, sitting alongside an ETO Alpha 77DX. Now, I have an Alpha, and the L4B is truly excess to my needs.
It has been in storage, 3 years, since I last fired her up. So, I am not "officially" going to sell it, until I hook it up, and test it, so that I can verify that it works as good as it looks. Once I have verified that, I will post photos, in the photos section. It will include 3 additional 3-500Z's. One N.O.S. Eimac, and two "other" used, that test as full output. The L4B is in excellent physical condition, with the original power supply. If, for some unexpected reason, it does not test well, it will NOT go up for sale, until it is working properly. Currently, I am floating a "trial balloon" as they say in the world of politics, to see if there is interest.
I will work with the buyer, and deliver, within a reasonable distance, of Vian, OK. I am NOT going to set a specific travel limit, but, we can discuss a fair and equitable manner of getting it to the buyer. Obviously, shipping, due to the weight of the P.S., will be pricey, if shipping is necessary.
For all of this, if it goes as planned, I expect to ask $1200 obo.
I expect to have it connected and tested, by this Friday, January 17, 2014.
Please email me, off list, if you are interested.
Also, the new year, greeted me, with sharply reduced income, and most of the radios I am not truly married to, will likely be going up for sale. I may be putting both my "B" & "C" Twins, up for sale, in the near future, as well as some other boatanchors. Tune in for more info.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. Let this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

18122. Re: [DrakeRadio] With deep sadness.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 01:52:43 UTC
From: Evan Rolek
Topic: 18121 Message: 18122

Always good to bring up an amp slowly with a Variac/Powerstat when it has been sitting a while...

-----Original Message-----
From: Dan Galligan <w3rxo@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Jan 14, 2014 8:24 pm
Subject: [DrakeRadio] With deep sadness.....

With deep sadness, I think, I am going to put my L4B up for sale. I lusted for one, for more than 35 years, since I saw my first, sitting alongside an ETO Alpha 77DX. Now, I have an Alpha, and the L4B is truly excess to my needs.
It has been in storage, 3 years, since I last fired her up. So, I am not "officially" going to sell it, until I hook it up, and test it, so that I can verify that it works as good as it looks. Once I have verified that, I will post photos, in the photos section. It will include 3 additional 3-500Z's. One N.O.S. Eimac, and two "other" used, that test as full output. The L4B is in excellent physical condition, with the original power supply. If, for some unexpected reason, it does not test well, it will NOT go up for sale, until it is working properly. Currently, I am floating a "trial balloon" as they say in the world of politics, to see if there is interest.
I will work with the buyer, and deliver, within a reasonabl e distance, of Vian, OK. I am NOT going to set a specific travel limit, but, we can discuss a fair and equitable manner of getting it to the buyer. Obviously, shipping, due to the weight of the P.S., will be pricey, if shipping is necessary.
For all of this, if it goes as planned, I expect to ask $1200 obo.
I expect to have it connected and tested, by this Friday, January 17, 2014.
Please email me, off list, if you are interested.
Also, the new year, greeted me, with sharply reduced income, and most of the radios I am not truly married to, will likely be going up for sale. I may be putting both my "B" & "C" Twins, up for sale, in the near future, as well as some other boatanchors. Tune in for more info.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If you don't love it, leave it. L et this.....be your warning. When you're runnin' down my country, Hoss, you're walking on the fightin' side of me!"
Merle Haggard

Sent from my iPad.

18123. Re: [DrakeRadio] With deep sadness.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 07:49:38 UTC
From: Richard Knoppow
Topic: 18121 Message: 18123

----- Original Message -----
From: "Evan Rolek" <k9sqg@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, January 14, 2014 5:52 PM
Subject: Re: [DrakeRadio] With deep sadness.....

Always good to bring up an amp slowly with a
Variac/Powerstat when it has been sitting a while...

I really think this is just fooling yourself. If you
think the power supply filter caps might be bad they can be
checked without powering up the supply. If the amplifier
has not been used for several years its a good idea to run
the finals with filament only for a couple of days. That
will help getter any gas that may have accumulated. If you
can bring the high voltage to the tubes up gradually and
watch for signs of gas or arc-overs its a good idea but not
possible on most small amplifiers. Once the amp is up,
assuming the tubes don't arc or show signs of serious gas
(glow discharge inside like a gas rectifier tube) run them
into a dummy load at red heat for a while. This should not
hurt the tubes and will getter any gas inside. Power tubes
do not do will when stored. According to Eimac the longest
tube life is gotten in continuous service.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18124. RE: [DrakeRadio] RV-4C NOT WORKING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 16:58:41 UTC
From: Ian Reeve
Topic: 18120 Message: 18124

On the schematic it shows as 15K ohms 2 watt rating

Hope that helps you in sorting it.
with regard to pcb repair, I would wire it in using wire to bridge the defective area of track.
Kind Regards
Ian Reeve MØIDR

To: DrakeRadio@yahoogroups.com
From: dcoffman@...
Date: Tue, 14 Jan 2014 16:32:09 -0800
Subject: [DrakeRadio] RV-4C NOT WORKING

My RV-4C stopped working so I have taken it out of the box. Underneath, R15 has disintegrated. It has been replaced before by a previous owner and an attempt has been made to repair the trace it was soldered to. I have no way to tell what value was present as the resistor was completely burnt up; it does appear to be a 2W carbon comp.

When I look at the schematic enclosed with Garry's CD's, it calls for a 15K Ohm 5 1/4 watt resistor. The trace that is on the board is very fine, did they really call for a 5 1/4 watt or is this a type O?

Thanks,

Doug - N9XTF

18125. Re: [DrakeRadio] RV-4C NOT WORKING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 17:06:51 UTC
From: Doug
Topic: 18120 Message: 18125

Ian,

On my copy from Garey, is shows 5 1/4 watt. On my RV-4 it shows 2 watt but when I look at my RV-4 it actually has a 10watt resistor. This must have been a problem and component ratings changed?

Doug

Sent from my iPhone

> On Jan 15, 2014, at 11:58, Ian Reeve <ian.radioworkshop@...> wrote:
>
> On the schematic it shows as 15K ohms 2 watt rating
>
>
> Hope that helps you in sorting it.
> with regard to pcb repair, I would wire it in using wire to bridge the defective area of track.
> Kind Regards
> Ian Reeve MØIDR
>
>
> To: DrakeRadio@yahoogroups.com
> From: dcoffman@...
> Date: Tue, 14 Jan 2014 16:32:09 -0800
> Subject: [DrakeRadio] RV-4C NOT WORKING
>
>
>
>
> My RV-4C stopped working so I have taken it out of the box. Underneath, R15 has disintegrated. It has been replaced before by a previous owner and an attempt has been made to repair the trace it was soldered to. I have no way to tell what value was present as the resistor was completely burnt up; it does appear to be a 2W carbon comp.
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>
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>
>
> Thanks,
>
>
> Doug - N9XTF
>

>
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18126. TR-3 Relay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 18:02:40 UTC
From: John Lawrence
Topic: 18126 Message: 18126

Before I buy this, does anyone in the group know if this will fit the TR-3?

http://www.ebay.com/itm/321116484013?ssPageName=STRK:MEWAX:IT&_trksid=p3984.m1423.l2649

I think the coil voltage is 48 V for the TR-3. Does anyone know which realy will work if the relay socket from the TR7Dude on ebay will work on my TR-3?

Gary: Which CD can I order from you that will cover a Very Early S/N (576) TR-3 or is the owner's manual all that I can use?

Thanks for the help folks!

--
John NE3E

18127. Re: [DrakeRadio] With deep sadness.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 18:14:46 UTC
From: Evan Rolek
Topic: 18121 Message: 18127

Hopefully, I'm not fooling myself but I'm not the sharpest knife in the drawer so it is easy to be deceived. What I have done in the past, which has worked successfully for me (your mileage might vary) is to bring up an amp slowly with "my" Variac. The one that I have has a voltmeter, ammeter, and wattmeter. As I bring up the voltage slowly, I watch the ammeter and wattmeter. If the current rises at almost the same rate as the voltage, I power things down and look inside the amp and power supply. This procedure has enabled me to find questionable electrolytics, disc ceramic line bypass caps that had excessive leakage, highly gassy 3-500Z tubes that had a beautiful purple glow (pre-flashover, hi hi), and so forth.

-----Original Message-----
From: Richard Knoppow <1oldlens1@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Jan 15, 2014 12:47 pm
Subject: Re: [DrakeRadio] With deep sadness.....

----- Original Message -----
From: "Evan Rolek" <k9sqg@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, January 14, 2014 5:52 PM
Subject: Re: [DrakeRadio] With deep sadness.....

Always good to bring up an amp slowly with a
Variac/Powerstat when it has been sitting a while...

I really think this is just fooling yourself. If you
think the power supply filter caps might be bad they can be
checked without powering up the supply. If the amplifier
has not been used for several years its a good idea to run
the finals with filament only for a couple of days. That
will help getter any gas that may have accumulated. If you
can bring the high voltage to the tubes up gradually and
watch for signs of gas or arc-overs its a good idea but not
possible on most small amplifiers. Once the amp is up,
assuming the tubes don't arc or show signs of serious gas
(glow discharge inside like a gas rectifier tube) run them
into a dummy load at red heat for a while. This should not
hurt the tubes and will getter any gas inside. Power tubes
do not do will when stored. According to Eimac the longest
tube life is gotten in continuous service.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18128. R-4A HUM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 18:49:18 UTC
From: K5MYJ
Topic: 18128 Message: 18128

This morning I tried setting up my R-4A to monitor on of the AM frequencies.

When I switched it from SSB to AM I got a lot of 60Hz(120Hz?) hum. I get no hum in either CW or SSB.

I would think if it was a power supply capacitor it would have hum in any mode.

I need to find time to put it on the bench and use the scope on it.

Comments?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

18129. Re: [DrakeRadio] With deep sadness.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 18:52:39 UTC
From: Richard Knoppow
Topic: 18121 Message: 18129

-----Original Message-----
From: Evan Rolek
Sent: Jan 15, 2014 10:14 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] With deep sadness.....

Hopefully, I'm not fooling myself but I'm not the sharpest knife in the drawer so it is easy to be deceived. What I have done in the past, which has worked successfully for me (your mileage might vary) is to bring up an amp slowly with "my" Variac. The one that I have has a voltmeter, ammeter, and wattmeter. As I bring up the voltage slowly, I watch the ammeter and wattmeter. If the current rises at almost the same rate as the voltage, I power things down and look inside the amp and power supply. This procedure has enabled me to find questionable electrolytics, disc ceramic line bypass caps that had excessive leakage, highly gassy 3-500Z tubes that had a beautiful purple glow (pre-flashover, hi hi), and so forth.

A metered Variac is something else and I think a good idea. You can tell right away if something is drawing too much current and shut it down. What I was objecting to is the idea of bringing voltage up slowly over hours with the idea that it will somehow allow bad caps to reform etc. I used this method routinely at -hp- where the Variac was also used to check the regulation of regulated power supplies. If you don't have a metered Variac the old trick of a light bulb in series with the equipment will help since it will also give some indication of sudden high current draw and to some extend limit it.

18130. Re: [DrakeRadio] RV-4C NOT WORKING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 18:53:58 UTC
From: Garey Barrell
Topic: 18120 Message: 18130

Doug -

The 'early' version of the RV-4C used a 2W resistor. The 'late' version specified the 5-1/4W wirewound. The resistor
dissipates 1.92 W, when the unit is OFF, or 1.7 W when it is ON in any mode. Essentially if the red light is OFF, R15
is dissipating 1.92 W.

Obviously, a 10W wirewound is fine. A pair of 30K, 2W resistors in parallel would be ok too.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug wrote:
>
>
> Ian,
>
> On my copy from Garey, is shows 5 1/4 watt. On my RV-4 it shows 2 watt but when I look at my RV-4 it actually has a
> 10watt resistor. This must have been a problem and component ratings changed?
>
> Doug
>

18131. Re: [DrakeRadio] TR-3 Relay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 19:40:27 UTC
From: Garey Barrell
Topic: 18126 Message: 18131

John -

Yup, works fine. See attached

The TR-4 CD has a 'TR-3 Supplement' that includes all three schematic versions. Some of the photos are pertinent, and
there are some additional documents. The TR-3 isn't all that different than the first TR-4 version.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Lawrence wrote:
>
>
> Before I buy this, does anyone in the group know if this will fit the TR-3?
>
> http://www.ebay.com/itm/321116484013?ssPageName=STRK:MEWAX:IT&_trksid=p3984.m1423.l2649
>
> I think the coil voltage is 48 V for the TR-3. Does anyone know which realy will work if the relay socket from the
> TR7Dude on ebay will work on my TR-3?
>
> Gary: Which CD can I order from you that will cover a Very Early S/N (576) TR-3 or is the owner's manual all that I
> can use?
>
> Thanks for the help folks!
>
> --
> John NE3E
>

[Non-text portions of this message have been removed]

18132. Re: [DrakeRadio] TR-3 Relay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 20:50:46 UTC
From: L L bahr
Topic: 18126 Message: 18132

I would not be without Garey's CDs on Drake Equipment. The excellent color photos and parts labels saves me countless amounts of time locating parts in the radios.
They are invaluable.

Lee, w0vt

18133. Re: [DrakeRadio] R-4A HUM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 20:54:39 UTC
From: Steve Wedge
Topic: 18128 Message: 18133

You are probably close to one or more fluorescent lighting fixtures. Ground loops can also do this in AM mode.

The key to this is that you hear the hum only in AM. If it was the filter caps, you'd hear hum in all modes.

Try reversing the AC line cord first, then try grounding the chassis in addition to whatever it's getting via the coaxial lead. If still no joy, cut off other circuits in your house and see if the noise goes away.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: K5MYJ
Sent: Wednesday, January 15, 2014 1:49 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] R-4A HUM!

☐

This morning I tried setting up my R-4A to monitor on of the AM frequencies.

When I switched it from SSB to AM I got a lot of 60Hz(120Hz?) hum. I get no hum in either CW or SSB.

I would think if it was a power supply capacitor it would have hum in any mode.

I need to find time to put it on the bench and use the scope on it.

Comments?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

18134. Re: [DrakeRadio] R-4A HUM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 21:11:17 UTC
From: Garey Barrell
Topic: 18128 Message: 18134

Bob -

Early or Late R-4A??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

K5MYJ wrote:
> □
>
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> I would think if it was a power supply capacitor it would have hum in any mode.
> I need to find time to put it on the bench and use the scope on it.
> Comments?
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
>
>
>

18135. Re: [DrakeRadio] R-4A HUM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 21:22:42 UTC
From: K5MYJ
Topic: 18128 Message: 18135

Garey,

I don't know right now. It will be a few days before I can get it out of it's operating position.

Steve points out it could be a ground loop. It will take me time to try to check it out.

Right now I want to know what to look for.

The speaker is in the case with the AC-3 power supply for my T-4X.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 15, 2014 1:11 PM
Subject: Re: [DrakeRadio] R-4A HUM!

Bob -

Early or Late R-4A??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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K5MYJ wrote:
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> I need to find time to put it on the bench and use the scope on it.
> Comments?
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
>
>
>

18136. Re: [DrakeRadio] R-4A HUM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-15 21:46:04 UTC
From: Garey Barrell
Topic: 18128 Message: 18136

OK. If it's early, 13 tube, I'd start by subbing V5 and V13. If late, 11 tube, check (bridge) C173 and/or C172.

Next step would be the old hardware check, i.e., check all ground and mounting screws for tightness, including PC cards,
terminal strips and socket mounting hardware.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

K5MYJ wrote:
> □
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> Garey,
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> Steve points out it could be a ground loop. It will take me time to try to check it out.
> Right now I want to know what to look for.
> The speaker is in the case with the AC-3 power supply for my T-4X.
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
>
> ----- Original Message -----
> *From:* Garey Barrell <mailto:k4oah@...>
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Sent:* Wednesday, January 15, 2014 1:11 PM
> *Subject:* Re: [DrakeRadio] R-4A HUM!
>
> Bob -
>
> Early or Late R-4A??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
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> > I would think if it was a power supply capacitor it would have hum in any mode.
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> > Comments?
> > Bob Macklin
> > K5MYJ
> > Seattle, Wa.
> > "Real Radios Glow In The Dark"
> >
>

18137. R4B/T4XC/AC4/MS4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 13:45:33 UTC
From: <ka9egw1@...>
Topic: 18137 Message: 18137

Hello all--new member here but not new to the hobby. As some of you who follow other lists may know I stumbled into a giant pile of radio gear at a price to good to pass up...and overextended the heck out of myself to keep it out of landfill/off 11 meters. Among the goodies was a pair of 4-lines, in absolutely beautiful condition. What do these sell for in this day and age? What should I ask for them? Pics at www dot britewerkz dot com Please reply *off list* to collins at britewerkz dot com 73, Brian KA9EGW [owner of britewerkz dot com]

18138. Re: [DrakeRadio] TR-3 Relay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 15:49:22 UTC
From: John Lawrence
Topic: 18126 Message: 18138

Thank you Gary and Lee. This is the best e-mail group I belong to!

On Wed, Jan 15, 2014 at 2:40 PM, Garey Barrell <k4oah@...> wrote:

> John -
>
> Yup, works fine. See attached
>
> The TR-4 CD has a 'TR-3 Supplement' that includes all three schematic
> versions. Some of the photos are pertinent, and there are some additional
> documents. The TR-3 isn't all that different than the first TR-4 version.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> John Lawrence wrote:
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>> Before I buy this, does anyone in the group know if this will fit the
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>> http://www.ebay.com/itm/321116484013?ssPageName=STRK:
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>> I think the coil voltage is 48 V for the TR-3. Does anyone know which
>> realy will work if the relay socket from the TR7Dude on ebay will work on
>> my TR-3?
>>
>> Gary: Which CD can I order from you that will cover a Very Early S/N (
>> 576) TR-3 or is the owner's manual all that I can use?
>>
>> Thanks for the help folks!
>>
>> --
>> John NE3E
>>
>>
>

--
John

18139. Drake Parts Site

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 16:29:36 UTC
From: Richard Knoppow
Topic: 18139 Message: 18139

David Ring on the CW list pointed out a site with a lot
of Drake and other stuff on it. Maybe old hat to those here
but I thought I would pass it along just in case. I have
not done business with these folks

http://2bradioparts.com/

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18140. Re: [DrakeRadio] Drake Parts Site

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 16:55:13 UTC
From: Al Parker
Topic: 18139 Message: 18140

Hi,
Donnie's a great guy, been around 10+ yrs I think. Since he retired
from his day job a while back, he's increased the list of items
available by quite a bit. He's had my business, I'm sure you'll be
happy with him.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/16/2014 11:29 AM, Richard Knoppow wrote:
> David Ring on the CW list pointed out a site with a lot
> of Drake and other stuff on it. Maybe old hat to those here
> but I thought I would pass it along just in case. I have
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>
> http://2bradioparts.com/
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>

18141. SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 17:06:58 UTC
From: <cdorn@...>
Topic: 18141 Message: 18141

Hi again,

Just poking around the SW-4A, and considering which caps to replace when I get to it. Seems that a couple of you in the recent past have gone down this road. I'm wondering how you approached the main 3 section filter with the capacitance range on each section?

Thanks,
Chris VE6RDC

18142. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 19:02:21 UTC
From: Bernie
Topic: 18141 Message: 18142

Chris,
It depends upon whether you want to keep the "appearance" for histerical purposes, or whether you want it to just work. Either way, you can contact Tom at Hayseed Hamfest (google it) and he can provide a replacement multi-section can of the identical diameter and height, or he can provide radial-lead electrolytics individually, so you can just disconnect the can, leave it in place for "appearances" sake and put the individual caps under-chassis, or if it is an axial 3 section cap, or the old yellow/orange kind you can also do the "above" by using the three radial lead caps, opening up the orange/yellow paper cap, gutting it out (not a pleasant task) placing the three seperate caps inside it, and blocking it up again with the new leads hanging out, so it "looks orginial". Whichever way you want to go, Tom can fix you up. Of course if it's a new can multi-section cap it would be more expensive. Next most expensive would be to send him the paper yellow/orange (sometimes blue) multi-section cap and he can re-stuff it. Cheapest is to order the 3 individual caps, disconnect the multi-section one, and install the 3 individual in it's place. The end result is all the same...a nice clean B+ from the power supply!!

Let us know how it goes.

Bernie in ND
WDØGMD

----- Original Message -----
From: cdorn@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, January 16, 2014 11:06 AM
Subject: [DrakeRadio] SW-4A Cap Question

Hi again,

Just poking around the SW-4A, and considering which caps to replace when I get to it. Seems that a couple of you in the recent past have gone down this road. I'm wondering how you approached the main 3 section filter with the capacitance range on each section?

Thanks,
Chris VE6RDC

18143. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 20:13:09 UTC
From: <cdorn@...>
Topic: 18141 Message: 18143

Thanks for this Bernie. I've done a few radios in the past, and typically just work under the chassis. I'm not clear about the capacitance values for this can. Each section has a range - 40-80, 20-40, and 10-20. I have not dealt with this before. I guess I'll have to dig out a schematic, and see what the circuit says. Just thought that someone had dealt with this already. I'll contact Hayseed, but they don't list the SW-4A as part of their standard line of products.

Chris

18144. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 20:22:10 UTC
From: barcand@...
Topic: 18141 Message: 18144

Chris,
I'd say anything between an 80-40-20 and a 40-20-10 will work...as long as those proportions are kept. Me? I'd just order up an 80-40-20 and go with it.

Bernie
WD0GMD

On Thu, January 16, 2014 2:13 pm, cdorn@... wrote:
> Thanks for this Bernie. I've done a few radios in the past, and typically
> just work under the chassis. I'm not clear about the capacitance values
> for this can. Each section has a range - 40-80, 20-40, and 10-20. I have
> not dealt with this before. I guess I'll have to dig out a schematic, and
> see what the circuit says. Just thought that someone had dealt with this
> already. I'll contact Hayseed, but they don't list the SW-4A as part of
> their standard line of products.
>
> Chris

18145. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 20:32:07 UTC
From: Don Cunningham
Topic: 18141 Message: 18145

Chris,
Call or email Tom at Hayseed Hamfest. He has seen all of these and can tell you in a minute what you need and likely has it in stock. He usually sends a voltage a bit higher than the original to allow for our higher modern voltages which helps too. Tom is a super guy to work with, and has values he builds for other rigs that he can offer for "odd" rigs as well.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3681/7008 - Release Date: 01/16/14

18146. RE: R4B/T4XC/AC4/MS4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 20:59:31 UTC
From: <ka9egw1@...>
Topic: 18137 Message: 18146

I posted a buncha pics...

18147. Re: [DrakeRadio] RE: R4B/T4XC/AC4/MS4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 21:04:36 UTC
From: barcand@...
Topic: 18137 Message: 18147

Tell us where???

On Thu, January 16, 2014 2:59 pm, ka9egw1@... wrote:
> I posted a buncha pics...
>

18148. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-16 22:39:45 UTC
From: Richard Knoppow
Topic: 18141 Message: 18148

-----Original Message-----
From: cdorn@...
Sent: Jan 16, 2014 12:13 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] SW-4A Cap Question

Thanks for this Bernie. I've done a few radios in the past, and typically just work under the chassis. I'm not clear about the capacitance values for this can. Each section has a range - 40-80, 20-40, and 10-20. I have not dealt with this before. I guess I'll have to dig out a schematic, and see what the circuit says. Just thought that someone had dealt with this already. I'll contact Hayseed, but they don't list the SW-4A as part of their standard line of products.

Chris

18149. R4B Preselector vernier assembly

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 00:58:08 UTC
From: <w5rkl@...>
Topic: 18149 Message: 18149

I'm in need of the Drake's R4 Preselector vernier "inner shaft". The inner shaft in my R4B Preselector has worn to the point where it can't be fixed by adding a spacer. The inner shaft no longer looks the same as the original inner shaft.

If you have one that's in good condition, not worn down to a "nub" as mine is, let me know via email.

Thank you and 73

Mike W5RKL
w5rkl at yahoo dot com

18150. RE: R4B Preselector vernier assembly

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 01:10:51 UTC
From: <w5rkl@...>
Topic: 18149 Message: 18150

I don't need the slug bracket and slugs, I only need the vernier assembly, including the bearings and bearing housing.

73
Mike W5RKL

18151. Re: [DrakeRadio] SW-4A Cap Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 01:20:34 UTC
From: <cdorn@...>
Topic: 18141 Message: 18151

Talked to Hayseed, and determined that their 2C cap kit is the equivalent for the SW-4A. Thanks for all the help.

Chris

18152. RE: R4B/T4XC/AC4/MS4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 05:47:55 UTC
From: <ka9egw1@...>
Topic: 18137 Message: 18152

album "KA9EGW"

18153. Crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 09:03:07 UTC
From: Wolfgang (VK3WY)
Topic: 18153 Message: 18153

Hi Group,

I found some excellent 9MHz filters on Ebay which are ideal for the TR-4C transeivers only $50 for the upper, lower and AM. They are of German design, excellent, used them when I still lived in Switzerland.

Item number: 141008771238

Best 73's

VK3WY

18154. Re: [DrakeRadio] Drake Parts Site

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 16:35:34 UTC
From: Chgypsy@...
Topic: 18139 Message: 18154

1oldlens1@... writes:

http://2bradioparts.com/
I have done business with them and have always had good service. Carl
WD8NHK

18155. TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 16:41:49 UTC
From: Jack Antonio
Topic: 17370 Message: 18155

There was some discussion of replacing TR-4 filters
a while back.

Does anyone have any stock TR-4C filters they would
like to part with?

It appears the LSB filter in my TR-4C is bad. It shows
quite a bit more insertion loss below 1500 cycles than
the USB filter.

I'd be interested in buying both upper and lower.

Thanks

Jack Antonio WA7DIA/4

18156. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 17:32:14 UTC
From: Kris Merschrod
Topic: 17370 Message: 18156

Was there an AM filter for the TR line - I just looked all over my TR-4C and can't find anything but the two SSB filters. What's the story?

For the R-4 receivers there is an AM filter (instead of the jumper resister - but that is another story. True?
Kris KM2KM
----- Original Message -----
From: Jack Antonio
To: DrakeRadio@yahoogroups.com ; drake@...
Sent: Friday, January 17, 2014 11:41 AM
Subject: [DrakeRadio] TR-4C Filters

There was some discussion of replacing TR-4 filters
a while back.

Does anyone have any stock TR-4C filters they would
like to part with?

It appears the LSB filter in my TR-4C is bad. It shows
quite a bit more insertion loss below 1500 cycles than
the USB filter.

I'd be interested in buying both upper and lower.

Thanks

Jack Antonio WA7DIA/4

18157. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 17:38:25 UTC
From: Doug
Topic: 17370 Message: 18157

The TR-4 Uses the SSB filters for AM, that's why the fidelity is bad on receive.

Sent from my iPhone

> On Jan 17, 2014, at 12:32, "Kris Merschrod" <kris@...> wrote:
>
> □
>
> Was there an AM filter for the TR line - I just looked all over my TR-4C and can't find anything but the two SSB filters. What's the story?
>
> For the R-4 receivers there is an AM filter (instead of the jumper resister - but that is another story. True?
> Kris KM2KM
> ----- Original Message -----
> From: Jack Antonio
> To: DrakeRadio@yahoogroups.com ; drake@...
> Sent: Friday, January 17, 2014 11:41 AM
> Subject: [DrakeRadio] TR-4C Filters
>
>
>
> There was some discussion of replacing TR-4 filters
> a while back.
>
> Does anyone have any stock TR-4C filters they would
> like to part with?
>
> It appears the LSB filter in my TR-4C is bad. It shows
> quite a bit more insertion loss below 1500 cycles than
> the USB filter.
>
> I'd be interested in buying both upper and lower.
>
> Thanks
>
> Jack Antonio WA7DIA/4
>
>

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18158. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 18:03:16 UTC
From: Garey Barrell
Topic: 17370 Message: 18158

Kris -

<http://www.wb4hfn.com/DRAKE/DrakeArticles/TR4-AM-MOD2/TR4-6-AM.htm>

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Kris Merschrod wrote:
> □
>
> Was there an AM filter for the TR line - I just looked all over my TR-4C and can't find anything but the two SSB
> filters. What's the story?
> For the R-4 receivers there is an AM filter (instead of the jumper resister - but that is another story. True?
> Kris KM2KM
>

18159. R4C AGC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 19:31:40 UTC
From: GALE STEWARD
Topic: 17370 Message: 18159

Hi Garey,

I'm in the process of rewiring the AGC switch on an older R4C (S/N 16961). I'm using the schematic from your CD for S/N 16151. This receiver had a Sherwood AGC/relay switch installed which I'm removing to install in another R4C and replacing it with a stock switch.

In looking at this schematic (near the AGC transistor Q7) it shows a cap off of the collector designated C75 (.0024). However directly above it on the schematic is a .001 cap also designated C75! This cap is (correctly) labeled C75 on your pic of the First IF, 2nd mixer, AGC board.

I'm wondering that the correct designation for the .0024 cap is. I haven't removed the circuit board so I don't have the best visuals to all of the components.

I did find the correct wire connection to the common of the AGC switch but I was wondering if the "two C75 caps" has come up before. BTW, the R4C parts list doesn't list a .0024 cap anywhere, unless I missed it.

73, Stew K3ND

18160. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 19:46:02 UTC
From: Kris Merschrod
Topic: 17370 Message: 18160

Thank you Garey,

That is a nice article by Jeff Covelli. I am still fiddling with the TR-4C and thought AM would be a nice addition - it would need some extra work. I like the idea of swapping out the 500Hz CW filter for the AM, but will not dare to on the CW/RIT that I use daily !
\73,

Kris KM2KM

18161. Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 20:10:39 UTC
From: Kris Merschrod
Topic: 17370 Message: 18161

Ok, guys, now that I've read a couple of the filter articles on the website and I am up to my ears into the TR-4C project, I'd like to put the probe of my frequency counter in the right places to measure:

1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so that I can set the dial to the right place)

2) While I am at it, where to probe for the 9 MHz IF?

Many thanks,

Kris KM2KM

18162. Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 20:53:37 UTC
From: Garey Barrell
Topic: 17370 Message: 18162

Kris -

There is a Red or Wht/Red wire coming out of the PTO on the bottom, accessible under the chassis.

000 on the dial should read 5.500 MHz, and 500 should read 4.900 MHz. Simpler to just set on frequency with the Calibrator

Easiest place to get the 9.000 MHz is on the wiper (center) terminal of the BALANCE pot. This may need to be tweaked
one way or the other to accommodate less than perfect filter response. Think of the letter "M" with the two peaks flat
on top, representing the filter bandwidths from 400 - 2500 Hz. The carrier sits in the "V" in the middle, approximately,
resulting in b/w of 400 - 2500 on either sideband. If the CAR OSC is off center by 200 Hz, one b/w will then be 200 -
2300 Hz, and the other will be 600 - 2700 Hz. Nominal adjustment is to adjust he CAR OSC slightly in either direction
until the noise sounds about the same on either LSB or USB.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Kris Merschrod wrote:
> □
>
> Ok, guys, now that I've read a couple of the filter articles on the website and I am up to my ears into the TR-4C
> project, I'd like to put the probe of my frequency counter in the right places to measure:
> 1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so that I can set the dial to the right place)
> 2) While I am at it, where to probe for the 9 MHz IF?
> Many thanks,
> Kris KM2KM
>
>
>

18163. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 20:55:07 UTC
From: Al Parker
Topic: 17370 Message: 18163

Hi all,
AM is not a nice addition to any of the Drake transmitters. You can only run very low power, and using a less than effective modulation scheme. The sweep tubes will suffer at more than 20-30 watts input on AM. If you want to do AM, get something that was made for it. It was probably more of an afterthought on the Drakes.
just my 2 cts worth,
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much worth doing as simply messing about in boats"
Ratty, to Mole

On 1/17/2014 2:46 PM, Kris Merschrod wrote:
> □
>
> Thank you Garey,
> That is a nice article by Jeff Covelli. I am still fiddling with the
> TR-4C and thought AM would be a nice addition - it would need some
> extra work. I like the idea of swapping out the 500Hz CW filter for the
> AM, but will not dare to on the CW/RIT that I use daily !
> \73,
> Kris KM2KM
>
>

18164. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 21:05:36 UTC
From: Garey Barrell
Topic: 17370 Message: 18164

Hi Al -

Agree, generally. AM was included originally as a 'compatibility' mode, since there was still considerable AM on the
bands when they were first introduced. Granted, it's not 100% plate modulated AM, but it IS 'sorta' compatible, and
actually makes a decent sounding signal with reasonable peak power, especially if the receiving station has SLOW AVC
available to him. It's at least as good as the DX-40 etc class, or any of the accessory screen modulators. It's also
compatible with a linear amplifier if you want a BIG signal.

But it is not, and will never be, as good as my ol Globe King 500, or even my Johnson Viking II for AM! :-) BUT, I
can still pick up the Drakes!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Al Parker wrote:
> Hi all,
> AM is not a nice addition to any of the Drake transmitters. You can
> only run very low power, and using a less than effective modulation
> scheme. The sweep tubes will suffer at more than 20-30 watts input on AM.
> If you want to do AM, get something that was made for it. It was
> probably more of an afterthought on the Drakes.
> just my 2 cts worth,
> 73,
>
> Al, W8UT
> www.boatanchors.org
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>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 1/17/2014 2:46 PM, Kris Merschrod wrote:
>> □
>>
>> Thank you Garey,
>> That is a nice article by Jeff Covelli. I am still fiddling with the

>> TR-4C and thought AM would be a nice addition - it would need some
>> extra work. I like the idea of swapping out the 500Hz CW filter for the
>> AM, but will not dare to on the CW/RIT that I use daily !
>> \73,
>> Kris KM2KM
>>

18165. Re: [DrakeRadio] Crystal filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 22:12:33 UTC
From: Steve VK2SJA
Topic: 18153 Message: 18165

Thanks for the heads up!

Just grabbed a set.

73, Steve
VK2SJA

> Hi Group,
>
> I found some excellent 9MHz filters on Ebay which are ideal for the TR-4C
> transeivers only $50 for the upper, lower and AM. They are of German
> design, excellent, used them when I still lived in Switzerland.
>
> Item number: 141008771238
>
> Best 73's
>
> VK3WY

18166. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-17 23:52:13 UTC
From: Richard Knoppow
Topic: 17370 Message: 18166

-----Original Message-----
>From: Garey Barrell <k4oah@...>
>Sent: Jan 17, 2014 1:05 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] TR-4C Filters
>
>Hi Al -
>
>Agree, generally. AM was included originally as a 'compatibility' mode, since there was still considerable AM on the
>bands when they were first introduced. Granted, it's not 100% plate modulated AM, but it IS 'sorta' compatible, and
>actually makes a decent sounding signal with reasonable peak power, especially if the receiving station has SLOW AVC
>available to him. It's at least as good as the DX-40 etc class, or any of the accessory screen modulators. It's also
>compatible with a linear amplifier if you want a BIG signal.
>
>But it is not, and will never be, as good as my ol Globe King 500, or even my Johnson Viking II for AM! :-) BUT, I
>can still pick up the Drakes!
>
>73, Garey - K4OAH
>Glen Allen, VA
>

This discussion caused me to do some research. I found two articles on the web which may be of interest. One is at:
http://www.w8ji.com/amplitude_modulation.htm
The other at:
www.pa2old.nl/files/am_fundamentals.pdf

The idea of controlled carrier modulation is to maximize the power output capability of a linear amplifier while minimizing its power dissipation. In a transmitter like the Drake T4 all the power going to the antenna must come from the output amplifier. In addition it is not designed for a continuous high dissipation. In either an SSB voice signal or a CW signal the long term average is quite low because the duty cycle is low. This is not true of conventional AM where the carrier must be supplied continuously. Where a linear amplifier is used for voice modulated AM the overall efficiency is rather low so the power handling capacity must be considerably higher than would appear from just the carrier power. For many years in the early days of broadcasting linear amplfiers were the standard. The plate circuit efficiency of a Class-B linear amplifier varies with the strength of the signal it is amplifying in comparison to its maximum capability. The maximum efficiency approaches 70% but where a 100% modulated AM signal is amplified the efficiency for the carrier is only about 33% and the long period (sometimes called all-day) efficiency is not

much higher due to the amplitude distribution of speech. The cure for this in broadcasting was the adoption of plate modulated transmitters using push-pull Class-B modulators. The RF amplifier could then operate at nearly the efficiency of a Class-C telegraph stage, i.e. approaching 80% while the modulator dissipation varied with the audio signal being very low in the absence of a signal. The other approach in broadcast transmitters was the use of various kinds of "high-efficiency" linear amplifier circuits such as the Doherty amplifier and its variations. These were able to operate in nearly Class-C for the carrier so the overall efficiency was raised to nearly 70%. These amplifiers are complex and generally fussy to tune.

The idea of the controlled carrier system was to generate a signal which was compatible with a conventional constant carrier AM signal but which could be amplified by a linear amplifier with good efficiency. The system works by generating a signal of essentially constant modulation index, i.e. percentage of modulation. With no modulation the carrier level is adjusted so some very low value which will not exceed the ability of the amplifier to handle it without excessive long term dissipation. The total power of the modulated signal can not exceed the power available to amplify a single sideband signal without distortion. Nor can the maximum power at 100% modulation be greater than the amplifier could supply if amplifying a conventional AM signal. The difference is that with normal voice signals the overall dissipation is considerably less than would be the case if a constant amplitude carrier had to be handled.

The problem with a controlled carrier AM signal lies in the receiver. If a conventional AVC is used, that is, one with a rather short time constant, it will attempt to follow the carrier level. This results in the receiver noise coming up between words and an unpleasant pumping effect as the amplification varies at a sylabic rate. The cure, of course, is the same as for carrier suppressed signals, namely to use either a fixed gain or an AVC with slow enough release characteristic so that it does not follow the sylabic variation in the speech. When this is done its difficult to tell a controlled carrier signal from a conventional AM signal.

One problem with the Drake system is that it does not provide any sort of automatic gain control for AM. In this way it is really no different from many conventional AM ham transmitters, most of which did not include any sort of compressor or clipper. So, one must be careful of modulation level and monitor the output with something like an oscilloscope that will indicate the modulation level or provide an external gain control device. Because the AM system in the T4 bypasses the narrow SSB filters it has a fairly wide audio frequency range although its limited by the time constants of the coupling networks in the audio.

Note that most of the power in an AM signal goes to waste, this is the very reason that carrier suppressed single sideband supplanted AM for communications purposes, so the effectiveness of a fixed power output transmitter will be considerably less for any sort of AM than for SSB with similar peak power.

My carpal tunnel syndrome is getting to me..

18167. Re: [DrakeRadio] TR-4C Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 00:43:47 UTC
From: AA8W
Topic: 17370 Message: 18167

Your right Al. But I sure confused a Brit a few sunspot cycles ago when
I came back to his AM CQ with a bouncing carrier!
73,
Mike AA8W

On 1/17/2014 3:55 PM, Al Parker wrote:
>
> Hi all,
> AM is not a nice addition to any of the Drake transmitters. You can
> only run very low power, and using a less than effective modulation
> scheme. The sweep tubes will suffer at more than 20-30 watts input on AM.
> If you want to do AM, get something that was made for it. It was
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> "There is nothing -- absolutely nothing -- half so much
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> On 1/17/2014 2:46 PM, Kris Merschrod wrote:
> > □
> >
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> > TR-4C and thought AM would be a nice addition - it would need some
> > extra work. I like the idea of swapping out the 500Hz CW filter for the
> > AM, but will not dare to on the CW/RIT that I use daily !
> > \73,
> > Kris KM2KM
> >
> >
>
>

18168. Re: [DrakeRadio] R4C AGC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 03:05:50 UTC
From: Garey Barrell
Topic: 17370 Message: 18168

Stew -

Interesting! No one has ever picked that up, including me..... :-('Doubled' identifiers aren't all that rare in
Drake schematics, especially after a version change or two. You'll see things like 'C75A' and C75B' in those cases. But
I don't know how I missed that. I don't have an R-4C open on the bench right now, but I'll open one up tomorrow and see
what I can see. There were several changes in that immediate area over the four versions, but ALL included the 2400 pF cap.

The photos and parts list are ONLY specific to the last version, but I sure don't see an extra cap in the photo.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GALE STEWARD wrote:
>
>
>
>
> ---

> **Hi Garey,
>
> I'm in the process of rewiring the AGC switch on an older R4C (S/N 16961). I'm using the schematic from your CD for
> S/N 16151. This receiver had a Sherwood AGC/relay switch installed which I'm removing to install in another R4C and
> replacing it with a stock switch.
>
> In looking at this schematic (near the AGC transistor Q7) it shows a cap off of the collector designated C75 (.0024).
> However directly above it on the schematic is a .001 cap also designated C75! This cap is (correctly) labeled C75 on
> your pic of the First IF, 2nd mixer, AGC board.
>
> I'm wondering that the correct designation for the .0024 cap is. I haven't removed the circuit board so I don't have
> the best visuals to all of the components.
>

> I did find the correct wire connection to the common of the AGC switch but I was wondering if the "two C75 caps" has
> come up before. BTW, the R4C parts list doesn't list a .0024 cap anywhere, unless I missed it.
>
> 73, Stew K3ND
>
>
>
>

18169. Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 03:42:10 UTC
From: Steve VK2SJA
Topic: 17370 Message: 18169

Hi All,

I've just got my TR-4C PTO on the bench. I've got:-

Black/White = Ground
Green/White = Signal Out
Red/White = Vcc (+11 volts)

Rig does show signs of having been tampered with though. Green/White wire total cold solder joint to vertical PCB underneath. Wire would spin freely in joint. So I'm guessing the radio was perhaps a little intermittent.

Some sort of grease used on PTO front end. Took ages to clean (most) of it off!

Slowly bringing her back to life.

73, Steve.

> Kris -
>
> There is a Red or Wht/Red wire coming out of the PTO on the bottom,
> accessible under the chassis.
>
> 000 on the dial should read 5.500 MHz, and 500 should read 4.900 MHz.
> Simpler to just set on frequency with the Calibrator
>
> Easiest place to get the 9.000 MHz is on the wiper (center) terminal of
> the BALANCE pot. This may need to be tweaked
> one way or the other to accommodate less than perfect filter response.
> Think of the letter "M" with the two peaks flat
> on top, representing the filter bandwidths from 400 - 2500 Hz. The carrier
> sits in the "V" in the middle, approximately,
> resulting in b/w of 400 - 2500 on either sideband. If the CAR OSC is off
> center by 200 Hz, one b/w will then be 200 -
> 2300 Hz, and the other will be 600 - 2700 Hz. Nominal adjustment is to
> adjust he CAR OSC slightly in either direction
> until the noise sounds about the same on either LSB or USB.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

>
> Kris Merschrod wrote:
>> □
>>
>> Ok, guys, now that I've read a couple of the filter articles on the
>> website and I am up to my ears into the TR-4C
>> project, I'd like to put the probe of my frequency counter in the right
>> places to measure:
>> 1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so
>> that I can set the dial to the right place)
>> 2) While I am at it, where to probe for the 9 MHz IF?
>> Many thanks,
>> Kris KM2KM
>>
>>
>>
>
>

18170. MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 06:02:49 UTC
From: <kmx888@...>
Topic: 6301 Message: 18170

I have an MN-2000 antenna tuner with a bad meter. The face etc. are fine but the mechanism is broken. I have looked on EBay and Ham Fests for quite a while with no joy. I am now in possession of an LJ5 power/swr meter. The original is marked HA.
The LJ5 has a face that is about 1/2 inch wider, 1/4 inch taller and 3/8 inch deeper.
The round body of the replacement meter is about 1/2 inch larger in diameter than is the old one as well as larger than the hole in the panel. The scales are the same. 0-2000 Watts on top SWR on the bottom.

Electrically is it likely that they are the same? If so does anyone have any good ideas for making the hole in the panel larger without creating a hacked mess?
Best,
Kevin
KS0ILM

18171. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 07:34:47 UTC
From: Allen Epling
Topic: 6301 Message: 18171

You might use a Dremmel tool with a grinder bit to ream it out to the correct diameter. A little patience and caution could produce a smooth round hole much like a factory hole.

Allen Epling

>_____
> From: "kmx888@..." <kmx888@...>
>To: DrakeRadio@...m
>Sent: Saturday, January 18, 2014 1:02 AM
>Subject: [DrakeRadio] MN-2000 Meter
>
>
>
>
>I have an MN-2000 antenna tuner with a bad meter. The face etc. are fine but the mechanism is broken. I have looked on EBay and Ham Fests for quite a while with no joy. I am now in possession of an LJ5 power/swr meter. The original is marked HA.
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>
>Electrically is it likely that they are the same? If so does anyone have any good ideas for making the hole in the panel larger without creating a hacked mess?
>Best,
>Kevin
>KS0ILM
>
>
>

18172. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 08:45:16 UTC
From: Jim Wiley
Topic: 6301 Message: 18172

Use a nibbling tool to enlarge the hole. It takes some time, but will do an excellent job. You will have to remove the panel to do this properly. To avoid marring the panel, orient the punch on the nibbling tool so it cuts from the front of the panel towards the back side. The meter itself will probably hide any scratches, but just in case.

Make the cut radially, from the center of the hole toward the edge. You can go the other way, around the edge of the hole if you want, but it is usually easier to control the depth of the cut (how much the circle is enlarged) by using lots of small radial cuts. In any case, you will probably want to mark the panel so you don't cut too far toward the outer edge. Roughly the same number of "nibbles" will probably be needed whichever way you choose to go.

The tool will take an approximately 1/4" by 1/16" "nibble" each time it operates. Smooth the hole, if that matters to you, with gentle strokes from a half-round file.

When enlarging holes, be careful not to take too much "bite", as the spacing between the outer edge of the meter body and the required hole is most likely fairly close. You don't want the hole to extend past the meter body.

You may have to drill new holes for the mounting screws. One way to mark them is to dab a bit of nail polish on the screws and press them against the panel. Sometimes "magic-marker" ink works just as well. You may also be able to generate a drilling template from the panel where the replacement meter came from, if you are "rescuing" the replacement meter from a non-working item.

- Jim, KL7CC

On 1/17/2014 9:02 PM, kmx888@... wrote:
>
> I have an MN-2000 antenna tuner with a bad meter. The face etc. are
> fine but the mechanism is broken. I have looked on EBay and Ham Fests
> for quite a while with no joy. I am now in possession of an LJ5
> power/swr meter. The original is marked HA.
>
> The LJ5 has a face that is about 1/2 inch wider, 1/4 inch taller and
> 3/8 inch deeper.
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> diameter than is the old one as well as larger than the hole in the
> panel. The scales are the same. 0-2000 Watts on top SWR on the bottom.
>
> Electrically is it likely that they are the same? If so does anyone

> have any good ideas for making the hole in the panel larger without
> creating a hacked mess?
> Best,
> Kevin
> KS0ILM
>

18173. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 15:45:08 UTC
From: Paul Kraemer
Topic: 6301 Message: 18173

Kevin
Are you absolutely positively sure the meter is beyond repair?
All it cost to find out is postage to Eldad Benary at the sound company in Long Island
He is aces at meter repair and very reasonable

If you must enlarge the hole, one method I have used to enlarge a round hole on the same center is put two hole saws on same arbor. One that fits the existing hole and a larger one for the new hole. Use a vs drill and go at it carefully slow speed. Works very well on re-boring door for dead bolt locks to a larger new mechanism.

A Dremel tool with the sanding drum works well to "chase" a hole to a slightly larger diameter or smooth out a rough cut. Just position the tool so it is cutting into the work rather than spinning around wildly and let the tool oscillate round the hole. I call it chasing. The dynamics of the proceedure makes a very good approximation to a perfect circle.

Cheers
Paul K0UYA
Still alive and kicking in Fairfield IA

From: kmx888@aol.com
Sent: Saturday, January 18, 2014 12:02 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] MN-2000 Meter

I have an MN-2000 antenna tuner with a bad meter. The face etc. are fine but the mechanism is broken. I have looked on EBay and Ham Fests for quite a while with no joy. I am now in possession of an LJ5 power/swr meter. The original is marked HA.

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Electrically is it likely that they are the same? If so does anyone have any good ideas for making the hole in the panel larger without creating a hacked mess?
Best,
Kevin
KS0ILM

18174. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 15:51:41 UTC
From: Joe - W7RKN
Topic: 6301 Message: 18174

Very dumb question here:

Why couldn't one take the meter movement assembly out of a W-4 and use it with the MN-2000 meter face?

Joe - W7RKN
----- Original Message -----
From: Paul Kraemer
Subject: Re: [DrakeRadio] MN-2000 Meter

Kevin
Are you absolutely positively sure the meter is beyond repair?
All it cost to find out is postage to Eldad Benary at the sound company in Long Island
He is aces at meter repair and very reasonable

18175. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 16:13:34 UTC
From: Garey Barrell
Topic: 6301 Message: 18175

I haven't seen anyone address the 'meter sensitivity' question? Be a shame to go through all this mechanical stuff only
to find out that the new meter is a 1 mA movement rather than the 200 uA (?) of the Drake meter??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Paul Kraemer wrote:
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>
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> carefully slow speed. Works very well on re-boring door for dead bolt locks to a larger new mechanism.
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> cut. Just position the tool so it is cutting into the work rather than spinning around wildly and let the tool
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> perfect circle.
> Cheers
> Paul K0UYA
> Still alive and kicking in Fairfield IA
>
> *From:* kmx888@... <mailto:kmx888@...>
> *Sent:* Saturday, January 18, 2014 12:02 AM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* [DrakeRadio] MN-2000 Meter
>
> I have an MN-2000 antenna tuner with a bad meter. The face etc. are fine but the mechanism is broken. I have looked on
> EBay and Ham Fests for quite a while with no joy. I am now in possession of an LJ5 power/swr meter. The original is
> marked HA.

> The LJ5 has a face that is about 1/2 inch wider, 1/4 inch taller and 3/8 inch deeper.
> The round body of the replacement meter is about 1/2 inch larger in diameter than is the old one as well as larger
> than the hole in the panel. The scales are the same. 0-2000 Watts on top SWR on the bottom.
>
> Electrically is it likely that they are the same? If so does anyone have any good ideas for making the hole in the
> panel larger without creating a hacked mess?
> Best,
> Kevin
> KS0ILM
>

18176. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 16:25:45 UTC
From: Paul Kraemer
Topic: 6301 Message: 18176

Good mention Garey
I would hate to think anyone would go through the exercise of replacing a meter without trying the new one first.
But I guess I know better than assume that
Paul

From: "Garey Barrell" <k4oah@...>
Sent: Saturday, January 18, 2014 10:13 AM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

> I haven't seen anyone address the 'meter sensitivity' question? Be a shame
> to go through all this mechanical stuff only
> to find out that the new meter is a 1 mA movement rather than the 200 uA
> (?) of the Drake meter??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
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>>
>> Kevin
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>> carefully slow speed. Works very well on re-boring door for dead bolt
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>> slightly larger diameter or smooth out a rough
>> cut. Just position the tool so it is cutting into the work rather than
>> spinning around wildly and let the tool
>> oscillate round the hole. I call it chasing. The dynamics of the
>> proceedure makes a very good approximation to a
>> perfect circle.

>> Cheers
>> Paul K0UYA
>> Still alive and kicking in Fairfield IA
>>
>> *From:* kmx888@... <mailto:kmx888@...>
>> *Sent:* Saturday, January 18, 2014 12:02 AM
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Subject:* [DrakeRadio] MN-2000 Meter
>>
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>> SWR on the bottom.
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>> panel larger without creating a hacked mess?
>> Best,
>> Kevin
>> KS0ILM
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> Yahoo Groups Links
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18177. RE: MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 18:41:02 UTC
From: <kmx888@...>
Topic: 6301 Message: 18177

I am not sure it is beyond repair, it is beyond my skill set for certain. I will try to find Mr. Benary and see if he can be helpful.
As you know the face and gauge face just pop right off leaving the mechanism bare. If I had another mechanism I could pop it right in.

I have gotten some good suggestions for methods to enlarge the hole but it is my last resort

Does anyone know if a W4 meter would work as a replacement? Could I just put the MN-2000 face on it?

Also does anyone know it the movement I have is the same technically as the one I am replacing. That was a very good point,, as was "testing" it before I started cutting sheet metal.
Best
Kevin
KD0ILM

18178. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 20:42:17 UTC
From: Robert Logan
Topic: 6301 Message: 18178

Paul, what is the link or address to Eldad Benary? I have WV-4 meter that needs repair or replacement. Thanks. Bob, NZ5A

Sent from my iPhone

On Jan 18, 2014, at 10:25 AM, "Paul Kraemer" <elespe@...> wrote:

Good mention Garey
I would hate to think anyone would go through the exercise of replacing a
meter without trying the new one first.
But I guess I know better than assume that
Paul

From: "Garey Barrell" <k4oah@...>
Sent: Saturday, January 18, 2014 10:13 AM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

> I haven't seen anyone address the 'meter sensitivity' question? Be a shame
> to go through all this mechanical stuff only
> to find out that the new meter is a 1 mA movement rather than the 200 uA
> (?) of the Drake meter??
>
> 73, Garey - K4OAH
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Paul Kraemer wrote:
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>> Kevin
>> Are you absolutely positively sure the meter is beyond repair?
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>> proceedure makes a very good approximation to a
>> perfect circle.
>> Cheers
>> Paul K0UYA
>> Still alive and kicking in Fairfield IA
>>
>> *From:* kmx888@... <mailto:kmx888@...>
>> *Sent:* Saturday, January 18, 2014 12:02 AM
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Subject:* [DrakeRadio] MN-2000 Meter
>>
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>> Best,
>> Kevin
>> KS0ILM
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> Yahoo Groups Links
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18179. Re: [DrakeRadio] RE: MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 21:58:40 UTC
From: Paul Kraemer
Topic: 6301 Message: 18179

Kevin
I believe it is same meter in W4 as MN-2000
Paul K0UYA

From: kmx888@...
Sent: Saturday, January 18, 2014 12:41 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] RE: MN-2000 Meter

I am not sure it is beyond repair, it is beyond my skill set for certain. I will try to find Mr. Benary and see if he can be helpful.

As you know the face and gauge face just pop right off leaving the mechanism bare. If I had another mechanism I could pop it right in.

I have gotten some good suggestions for methods to enlarge the hole but it is my last resort

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Also does anyone know it the movement I have is the same technically as the one I am replacing. That was a very good point,, as was "testing" it before I started cutting sheet metal.

Best

Kevin

KD0ILM

18180. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-18 22:01:48 UTC
From: Paul Kraemer
Topic: 6301 Message: 18180

Remember, Google is your friend
Eldad Benary
(845) 246-2466
129 George Sickle Rd
Saugerties, NY 12477-3208

Read more:
http://411.info/people/New-York/Saugerties/Benary-Eldad/8031356.html#ixzz2qn2bq400
Paul K0UYA

From: Robert Logan
Sent: Saturday, January 18, 2014 2:42 PM
To: DrakeRadio@yahoogroups.com
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

Paul, what is the link or address to Eldad Benary? I have WV-4 meter that needs repair or replacement. Thanks. Bob, NZ5A

Sent from my iPhone

On Jan 18, 2014, at 10:25 AM, "Paul Kraemer" <elespe@...> wrote:

Good mention Garey
I would hate to think anyone would go through the exercise of replacing a
meter without trying the new one first.
But I guess I know better than assume that
Paul

From: "Garey Barrell" <k4oah@...>
Sent: Saturday, January 18, 2014 10:13 AM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

> I haven't seen anyone address the 'meter sensitivity' question? Be a shame
> to go through all this mechanical stuff only
> to find out that the new meter is a 1 mA movement rather than the 200 uA
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> Paul Kraemer wrote:
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>> Are you absolutely positively sure the meter is beyond repair?
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>> Still alive and kicking in Fairfield IA
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>> *From:* kmx888@... <mailto:kmx888@...>
>> *Sent:* Saturday, January 18, 2014 12:02 AM
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Subject:* [DrakeRadio] MN-2000 Meter
>>
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>> Best,
>> Kevin
>> KS0ILM
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> Yahoo Groups Links
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18181. Re: [DrakeRadio] MN-2000 Meter Big hole

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 13:56:30 UTC
From: Chgypsy@...
Topic: 18181 Message: 18181

kmx888@... writes:

Electrically is it likely that they are the same? If so does anyone have any good ideas for making the hole in the panel larger without creating a hacked mess?
Best, Kevin KS0ILM

If you have a bench or floor drilll and a decent set of hole saws available.

Piece of decent say 3/4" plywood larger than the MN2000 panel.
Hole saw pilot hole drilled through the ply.
Clamp the ply to your drill shelf, and clamp (well clamped) the panel to the ply with the drill hole exactly centered in your meter hole. Panel clamps to as close as you can to the enlarged hole area to be.
Clean the back edge where the drill came through and do go slowly. Carl WD8NHK

18182. Re: [DrakeRadio] MN-2000/W4 meter swap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 13:59:51 UTC
From: Chgypsy@...
Topic: 18182 Message: 18182

w7rkn.7@... (mailto:w7rkn.7@...) writes:

Why couldn't one take the meter movement assembly out of a W-4 and use it with the MN-2000 meter face? Joe - W7RKN

You can, but the bolts for the wires will have to be swapped out to the W4 meter. Have gone the other way.
Carl WD8NHK

18183. Re: [DrakeRadio] MN-2000/W4 meter swap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 15:57:15 UTC
From: <kmx888@...>
Topic: 18182 Message: 18183

Here is another link I found for Mr Benary. I used it to contact him but no joy yet. If I hear and get his email I will pass it along. I sure appreciate all of the good advice. I am not the brightest bulb on the porch, but this is how you learn in this day and age. Like having several hundred Elmers. Sooner or later you learn enough to help others. Repair and challenges like this are my favorite part of the hobby. I like to fiddle as much or more than I like to operate,
Kevin
KD0ILM/XV2KM

http://www.skillpages.com/electronics-technician-/saugerties-united-states/eldad.benary

18184. Re: [DrakeRadio] MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 16:03:27 UTC
From: Robert Logan
Topic: 6301 Message: 18184

Paul, I've got some friends that drive me crazy.

Never thought to look up a personal name!!

Thanks, buddy. Bon

Sent from my iPhone

On Jan 18, 2014, at 4:01 PM, "Paul Kraemer" <elespe@...> wrote:

Remember, Google is your friend
Eldad Benary

(845) 246-2466

129 George Sickle Rd
Saugerties, NY 12477-3208

Read more:
http://411.info/people/New-York/Saugerties/Benary-Eldad/8031356.html#ixzz2qn2bq400
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From: Robert Logan
Sent: Saturday, January 18, 2014 2:42 PM
To: DrakeRadio@yahoogroups.com
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

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meter without trying the new one first.
But I guess I know better than assume that
Paul

From: "Garey Barrell" <k4oah@...>
Sent: Saturday, January 18, 2014 10:13 AM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] MN-2000 Meter

> I haven't seen anyone address the 'meter sensitivity' question? Be a shame
> to go through all this mechanical stuff only

> to find out that the new meter is a 1 mA movement rather than the 200 uA
> (?) of the Drake meter??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Paul Kraemer wrote:
>>
>>
>> Kevin
>> Are you absolutely positively sure the meter is beyond repair?
>> All it cost to find out is postage to Eldad Benary at the sound company
>> in Long Island
>> He is aces at meter repair and very reasonable
>> If you must enlarge the hole, one method I have used to enlarge a round
>> hole on the same center is put two hole saws
>> on same arbor. One that fits the existing hole and a larger one for the
>> new hole. Use a vs drill and go at it
>> carefully slow speed. Works very well on re-boring door for dead bolt
>> locks to a larger new mechanism.
>> A Dremel tool with the sanding drum works well to "chase" a hole to a
>> slightly larger diameter or smooth out a rough
>> cut. Just position the tool so it is cutting into the work rather than
>> spinning around wildly and let the tool
>> oscillate round the hole. I call it chasing. The dynamics of the
>> proceedure makes a very good approximation to a
>> perfect circle.
>> Cheers
>> Paul K0UYA
>> Still alive and kicking in Fairfield IA
>>
>> *From:* kmx888@... <mailto:kmx888@...>
>> *Sent:* Saturday, January 18, 2014 12:02 AM
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Subject:* [DrakeRadio] MN-2000 Meter
>>
>> I have an MN-2000 antenna tuner with a bad meter. The face etc. are fine
>> but the mechanism is broken. I have looked on
>> EBay and Ham Fests for quite a while with no joy. I am now in possession
>> of an LJ5 power/swr meter. The original is
>> marked HA.
>> The LJ5 has a face that is about 1/2 inch wider, 1/4 inch taller and 3/8
>> inch deeper.
>> The round body of the replacement meter is about 1/2 inch larger in
>> diameter than is the old one as well as larger
>> than the hole in the panel. The scales are the same. 0-2000 Watts on top

>> SWR on the bottom.
>>
>> Electrically is it likely that they are the same? If so does anyone have
>> any good ideas for making the hole in the
>> panel larger without creating a hacked mess?
>> Best,
>> Kevin
>> KS0ILM
>>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

18185. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 19:16:31 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 18185

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

18186. Re: [DrakeRadio] MN-2000/W4 meter swap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-19 21:04:12 UTC
From: Jim Shorney
Topic: 18182 Message: 18186

FWIW, Jewell Instruments is still making meters:

http://www.rammeter.com/jewell-instruments-modutec-s-series-analog-panel-meters.php

73

-Jim
NU0C

On 19 Jan 2014 07:57:15 -0800, kmx888@... wrote:

>Here is another link I found for Mr Benary. I used it to contact him but no joy yet. If I hear and get his email I will pass it along. I sure appreciate all of the good advice. I am not the brightest bulb on the porch, but this is how you learn in this day and age. Like having several hundred Elmers. Sooner or later you learn enough to help others. Repair and challenges like this are my favorite part of the hobby. I like to fiddle as much or more than I like to operate,
> Kevin
> KD0ILM/XV2KM
>

> http://www.skillpages.com/electronics-technician-/saugerties-united-states/eldad.benary

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18187. Re: [DrakeRadio] Drake Aux 7 board FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-20 21:00:02 UTC
From: Chgypsy@...
Topic: 18187 Message: 18187

Hello to the group,
Was going through bins looking for x cable and found a treasure.

For those with a TR7 or R7
Drake Aux 7 board in original box, with build tag. # 2992 , no modules,
box has been opened.
Reasonable offers offline _Chgypsy@..._ (mailto:Chgypsy@...)

73 Carl WD8NHK

18188. RE: MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-20 22:09:23 UTC
From: <gbeat5@...>
Topic: 6301 Message: 18188

June 2011 information posted on other Drake Repair / Restoration Reflectors.

Drake used the Jewell MS2T meter in the Drake W-4 Watt/SWR Meter, as well as other pieces of equipment (some antenna tuners, such as the MN-2000).

The specific meter used (Jewell MS2T) a Small core type movement, Taut band, 200 uA at 225 ohms
with a Red Knife Edge pointer and RF 0-2000/200 RF WATTS meter scale.
Part number (Larson Metercraft): JE119003-100-R

Jewell Instruments, LLC
850 Perimeter Road
Manchester, NH 03103 USA
1-800-METERS-1 (800-638-3771)
http://www.jewellinstruments.com/meters-and-avionics/panel-meters/analog-meters-product-list/ http://www.jewellinstruments.com/meters-and-avionics/panel-meters/analog-meters-product-list/

The Jewell Instruments catalog (2011) showed the MS series (Rugged category)
While Jewell can ramp up production for a large order, when I talked to them in 2009 --
the MS2 series appears to be ending production.
http://www.jewellinstruments.com/meters-and-avionics/panel-meters/analog-meters-product-list/#Jewell http://www.jewellinstruments.com/meters-and-avionics/panel-meters/analog-meters-product-list/#Jewell

MS-series product sheet (2013 Jewell product sheet shows - Still Available)
http://www.jewellinstruments.com/wp-content/uploads/2012/11/Jewell-MS-Series.pdf
http://www.jewellinstruments.com/wp-content/uploads/2012/11/Jewell-MS-Series.pdf

According to Bob Larson, at Larson Metercraft ---
Jewell (now part of Hoyt Meter in NH) made 4 different versions of their MS2 Series ..

MS2 (OLD LARGE MAGNET pivot and Jewell movement)
MS2TB (OLD LARGE MAGNET Taut band type)
MS2T Small core type movement Taut band -- THIS IS VERSION - DRAKE USED
MS2CM Small core type pivot and Jewell
===
I restored a broken Drake W-4, SN #10 wattmeter .. that also had a damaged meter movement.
Bob Larson at Larson Metercraft replaced my damaged movement.

RAM Meter in Michigan is a GOOD CONTACT fir Repair or Meter Mivement Replacement.
Bob Larson at Larson Metercraft (California) is another Jewell repair center for older Drake meters.

18189. Re: [DrakeRadio] MN-2000/W4 meter swap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-20 22:35:52 UTC
From: <gbeat5@...>
Topic: 18182 Message: 18189

Jim -

It is a Jewell meter, NOT the Modutec S-series.

It is the Jewell MS-series -- product sheet here:
http://www.jewellinstruments.com/wp-content/uploads/2012/11/Jewell-MS-Series.pdf

Jewell Analog Meters
http://www.jewellinstruments.com/meters-and-avionics/panel-meters/analog-meters-product-list/

RAM Meter, Inc.
1903 Barrett Dr,
Troy, MI

(800) 446-4035

18190. Re: [DrakeRadio] Drake Aux 7 board FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 04:32:54 UTC
From: Jim Shorney
Topic: 18187 Message: 18190

Any takers?

On Mon, 20 Jan 2014 16:00:02 -0500 (EST), Chgypsy@... wrote:

>Hello to the group,
>Was going through bins looking for x cable and found a treasure.
>
>For those with a TR7 or R7
>Drake Aux 7 board in original box, with build tag. # 2992 , no modules,
>box has been opened.
>Reasonable offers offline _Chgypsy@..._ (mailto:Chgypsy@...)
>
>73 Carl WD8NHK

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18191. Re: [DrakeRadio] R4C AGC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 17:28:06 UTC
From: Garey Barrell
Topic: 17370 Message: 18191

Stew -

Near as I can determine, there is no 2400 pF cap! I've looked at two fairly late R-4Cs, and neither has one. Bill
Frost doesn't recall anything about it. I think it may have been in the original design, but was removed very early on.
It's shown on all schematic versions of the R-4C, but I don't have an unit to check. I would guess it was replaced with
the 0.001 uF C75, and accidently left behind. There is no similar cap in the R-4B, which has the same AVC circuit.

In making the CD, I made the parts list from the schematic, and when I located each part I would add its description to
the list. Apparently I found the 0.001 uF 'C75' and missed the 0.0024 uF one! My only excuse is that it was my first
attempt at this project and just missed it. Two other experienced techs proofread the original documents, but ......
:-) I think I'll just record it now, and if I am able to access earlier s/n units evaluate whether to remove the cap
from the schematic, or add a C75a to the Parts list.

Thanks for pointing it out, and I'll let you know if I come up with a 'good' answer! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GALE STEWARD wrote:
>
>
>
>
> ---

> **Hi Garey,
>
> I'm in the process of rewiring the AGC switch on an older R4C (S/N 16961). I'm using the schematic from your CD for
> S/N 16151. This receiver had a Sherwood AGC/relay switch installed which I'm removing to install in another R4C and
> replacing it with a stock switch.
>
> In looking at this schematic (near the AGC transistor Q7) it shows a cap off of the

collector designated C75 (.0024).
> However directly above it on the schematic is a .001 cap also designated C75! This cap is (correctly) labeled C75 on
> your pic of the First IF, 2nd mixer, AGC board.
>
> I'm wondering that the correct designation for the .0024 cap is. I haven't removed the circuit board so I don't have
> the best visuals to all of the components.
>
> I did find the correct wire connection to the common of the AGC switch but I was wondering if the "two C75 caps" has
> come up before. BTW, the R4C parts list doesn't list a .0024 cap anywhere, unless I missed it.
>
> 73, Stew K3ND
>
>
>
>

18192. New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 18:11:54 UTC
From: Glenn Blum
Topic: 18192 Message: 18192

Good afternoon,
Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their thoughts. I have mine set up for computer control through SWLog program.

Glenn
Kd5dga

18193. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 19:48:32 UTC
From: Garey Barrell
Topic: 18192 Message: 18193

Hi Glenn -

Welcome to the group. You might want to check the Draker8 group here on Yahoo! They are 'dedicated' to the R-8 series.

I imagine I'm not the only one here with an R-8A, so there's probably useful information here as well.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Glenn Blum wrote:
>
>
> Good afternoon,
> Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has
> quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their
> thoughts. I have mine set up for computer control through SWLog program.
>
> Glenn
> Kd5dga
>
>
>

18194. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 19:49:19 UTC
From: Barry
Topic: 18192 Message: 18194

There is/was a Yahoo group for the R8. Don't know how active it is but I believe it still exists.

Regards,
Barry - N4BUQ

----- Original Message -----
> From: "Glenn Blum" <glennblum@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, January 21, 2014 12:11:54 PM
> Subject: [DrakeRadio] New member with R8B
>
>
>
>
>
> Good afternoon,
> Back in the summer I purchased a R8B used from universal radio. So
> far, I love the radio. Functions excellent and has quality sound.
> Since there is no active R8 groups out there I hope there are a few
> here that will share their thoughts. I have mine set up for computer
> control through SWLog program.
>
> Glenn
> Kd5dga
>
>
>

18195. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 19:52:35 UTC
From: Evan Rolek
Topic: 18192 Message: 18195

Glenn,

I had a straight R8 for several months but ended up selling it off. Nice receiver for casual listening but the ergonmics, usability, human factors, or whatever term one cares to use, were less than ideal, hi hi. The B model was much improved in that regard.

73,

Evan, K9SQG

-----Original Message-----
From: Glenn Blum <glennblum@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Jan 21, 2014 2:45 pm
Subject: [DrakeRadio] New member with R8B

Good afternoon,
Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their thoughts. I have mine set up for computer control through SWLog program.

Glenn
Kd5dga

18196. RE: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 19:53:44 UTC
From: Glenn Blum
Topic: 18192 Message: 18196

I tried to join but never got accepted. Even though the R8B is dated radio but still has solid performance. I am impressed.

-----Original Message-----
From: "Garey Barrell" <k4oah@...>
Sent: ☐1/☐21/☐2014 1:48 PM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] New member with R8B

Hi Glenn -

Welcome to the group. You might want to check the Draker8 group here on Yahoo! They are 'dedicated' to the R-8 series.

I imagine I'm not the only one here with an R-8A, so there's probably useful information here as well.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Glenn Blum wrote:
>
>
> Good afternoon,
> Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has
> quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their
> thoughts. I have mine set up for computer control through SWLog program.
>
> Glenn
> Kd5dga
>
>
>

Yahoo Groups Links

18197. RE: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 19:57:43 UTC
From: Glenn Blum
Topic: 18192 Message: 18197

Mine is a R8B with vhf unit. On shortwave and am broadcast I am finding out the performance is exceptional.
I like computer control but one draw back I am having is my big flat screen monitor is causing some interference. So my limited space on my desk will have to create something that will not cause the interference but still have toe radio within hands reach.

-----Original Message-----
From: "Evan Rolek" <k9sqg@...>
Sent: ☐1/☐21/☐2014 1:52 PM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] New member with R8B

Glenn,

I had a straight R8 for several months but ended up selling it off. Nice receiver for casual listening but the ergonmics, usability, human factors, or whatever term one cares to use, were less than ideal, hi hi. The B model was much improved in that regard.

73,

Evan, K9SQG

-----Original Message-----
From: Glenn Blum <glennblum@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Jan 21, 2014 2:45 pm
Subject: [DrakeRadio] New member with R8B

Good afternoon,
Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their thoughts. I have mine set up for computer control through SWLog program.

Glenn
Kd5dga

[The entire original message is not included.]

18198. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:07:44 UTC
From: Garey Barrell
Topic: 18192 Message: 18198

My opinion when it came out at Dayton was that "it looks more like a VCR than a radio!!", kinda like the Kenwood
TS-2000..... :-)

I like my R-8A, but it spends most of it's time on talk radio or sports.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Evan Rolek wrote:
>
>
> Glenn,
>
> I had a straight R8 for several months but ended up selling it off. Nice receiver for casual listening but the
> ergonmics, usability, human factors, or whatever term one cares to use, were less than ideal, hi hi. The B model was
> much improved in that regard.
>
> 73,
>
> Evan, K9SQG
>
>
> -----Original Message-----
> From: Glenn Blum <glennblum@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Tue, Jan 21, 2014 2:45 pm
> Subject: [DrakeRadio] New member with R8B
>
> Good afternoon,
> Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has
> quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their
> thoughts. I have mine set up for computer control through SWLog program.
>
> Glenn
> Kd5dga
>
>

>

18199. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:15:17 UTC
From: Garey Barrell
Topic: 18192 Message: 18199

Glenn -

Yes, it's a pretty inactive group. Still have 600+ subscribers, but last post was Dec 3, 2013. Did you notice this
'Notice' from the info page???

"***NOTE*** If you are requesting membership, you MUST leave a comment in your request as to WHY you want to join. An
empty (no comment) request will be denied."

Anyway, you're welcome here, and there are at least a few 8's around! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Glenn Blum wrote:
>
>
> I tried to join but never got accepted. Even though the R8B is dated radio but still has solid performance. I am
> impressed.
> ----------
> From: Garey Barrell <mailto:k4oah@...>
> Sent: ☐1/☐21/☐2014 1:48 PM
> To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> Subject: Re: [DrakeRadio] New member with R8B
>
> Hi Glenn -
>
> Welcome to the group. You might want to check the Draker8 group here on Yahoo! They are 'dedicated' to the R-8 series.
>
> I imagine I'm not the only one here with an R-8A, so there's probably useful information here as well.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
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>
> Glenn Blum wrote:
> >

> >
> > Good afternoon,
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> > quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their
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> >
> > Glenn
> > Kd5dga
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> Yahoo Groups Links
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18200. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:20:58 UTC
From: Don Cunningham
Topic: 18192 Message: 18200

And quite a few of us old, obsolete R7's hanging around too, HI.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3681/7022 - Release Date: 01/21/14

18201. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:34:53 UTC
From: John Wingard
Topic: 18192 Message: 18201

I've tried several times to join the R8 Yahoo group and I did leave comments that I was a long-time R8 owner as well as owning other Drake gear since 1976. I even gave my call sign if they wanted to see if I was an amateur (not that it should matter). For the record, I've never been allowed to join, and in fact, I have received no response at all from the moderator or anyone else. I'm not sure what type of member they are looking for, but I don't really care at this point. This group is much better!

73, John - WB4GLJ

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, January 21, 2014 3:15 PM
Subject: Re: [DrakeRadio] New member with R8B

Glenn -

Yes, it's a pretty inactive group. Still have 600+ subscribers, but last post was Dec 3, 2013. Did you notice this
'Notice' from the info page???

"***NOTE*** If you are requesting membership, you MUST leave a comment in your request as to WHY you want to join. An
empty (no comment) request will be denied."

Anyway, you're welcome here, and there are at least a few 8's around! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Glenn Blum wrote:
>
>
> I tried to join but never got accepted. Even though the R8B is dated radio but still has solid performance. I am
> impressed.
> ----------
> From: Garey Barrell <mailto:k4oah@mindspring.com>
> Sent: □1/□21/□2014 1:48 PM
> To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> Subject: Re: [DrakeRadio] New member with R8B
>
> Hi Glenn -
>

> Welcome to the group. You might want to check the Draker8 group here on Yahoo! They are 'dedicated' to the R-8 series.
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> I imagine I'm not the only one here with an R-8A, so there's probably useful information here as well.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Glenn Blum wrote:
> >
> >
> > Good afternoon,
> > Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has
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> > thoughts. I have mine set up for computer control through SWLog program.
> >
> > Glenn
> > Kd5dga
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> Yahoo Groups Links
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Yahoo Groups Links

http://info.yahoo.com/legal/us/yahoo/utos/terms/

18202. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:42:45 UTC
From: Garey Barrell
Topic: 18192 Message: 18202

My R-7 still performs nicely with my TR-7. The R-7 even 'looks' like a radio! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> □
>
> And quite a few of us old, obsolete R7's hanging around too, HI.
> 73,
> Don, WB5HAK
>

18203. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:42:59 UTC
From: Barry
Topic: 18192 Message: 18203

Owners and moderators may simply no longer manage the list (illness, inattention, other). I belong to a group where I was a moderator and the owner simply stopped participating. It took me years to find the owner and get the group transferred to me. Unfortunately, Yahoo will not help in this case as it is a violation of their ToS contract.

Regards,
Barry - N4BUQ

----- Original Message -----
> From: "John Wingard" <jwin2485@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, January 21, 2014 2:34:53 PM
> Subject: Re: [DrakeRadio] New member with R8B
>
>
>
>
> I've tried several times to join the R8 Yahoo group and I did leave
> comments that I was a long-time R8 owner as well as owning other
> Drake gear since 1976. I even gave my call sign if they wanted to
> see if I was an amateur (not that it should matter). For the record,
> I've never been allowed to join, and in fact, I have received no
> response at all from the moderator or anyone else. I'm not sure what
> type of member they are looking for, but I don't really care at this
> point. This group is much better!
>
> 73, John - WB4GLJ
>
>
>
>
>
>
>
>
>
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, January 21, 2014 3:15 PM
> Subject: Re: [DrakeRadio] New member with R8B
>
>
>
> Glenn -
>
> Yes, it's a pretty inactive group. Still have 600+ subscribers, but
> last post was Dec 3, 2013. Did you notice this

> 'Notice' from the info page???
>
>
> "***NOTE*** If you are requesting membership, you MUST leave a
> comment in your request as to WHY you want to join. An
> empty (no comment) request will be denied."
>
> Anyway, you're welcome here, and there are at least a few 8's around!
> :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> < www.k4oah.com >
>
> Glenn Blum wrote:
> >
> >
> > I tried to join but never got accepted. Even though the R8B is
> > dated radio but still has solid performance. I am
> > impressed.
> > ----------
> > From: Garey Barrell <mailto: k4oah@... >
> > Sent: □1/□21/□2014 1:48 PM
> > To: DrakeRadio@...m <mailto: DrakeRadio@yahoogroups.com
> > >
> > Subject: Re: [DrakeRadio] New member with R8B
> >
> > Hi Glenn -
> >
> > Welcome to the group. You might want to check the Draker8 group
> > here on Yahoo! They are 'dedicated' to the R-8 series.
> >
> > I imagine I'm not the only one here with an R-8A, so there's
> > probably useful information here as well.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Glenn Blum wrote:
> > >
> > >
> > > Good afternoon,

> > > Back in the summer I purchased a R8B used from universal radio.
> > > So far, I love the radio. Functions excellent and has
> > > quality sound. Since there is no active R8 groups out there I
> > > hope there are a few here that will share their
> > > thoughts. I have mine set up for computer control through SWLog
> > > program.
> > >
> > > Glenn
> > > Kd5dga
> > >
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> > Yahoo Groups Links
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18204. Re: [DrakeRadio] R4C AGC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 20:47:28 UTC
From: GALE STEWARD
Topic: 17370 Message: 18204

Thanks for all the research Garey. I have two R4Cs open and can't find a 2400 pf cap in either one. There is no 2400 pf cap listed in the parts list either. Interesting...

I was able to ring out the wiring from the AGC board to the AGC switch without any other issues. That's what started the search for the missing cap as I was spending a lot of time working with the schematic in the area of the AGC board (checking, re-checking, etc.).

73, Stew K3ND

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, January 21, 2014 12:28 PM
Subject: Re: [DrakeRadio] R4C AGC

Stew -

Near as I can determine, there is no 2400 pF cap! I've looked at two fairly late R-4Cs, and neither has one. Bill
Frost doesn't recall anything about it. I think it may have been in the original design, but was removed very early on.
It's shown on all schematic versions of the R-4C, but I don't have an unit to check. I would guess it was replaced with
the 0.001 uF C75, and accidently left behind. There is no similar cap in the R-4B, which has the same AVC circuit.

In making the CD, I made the parts list from the schematic, and when I located each part I would add its description to
the list. Apparently I found the 0.001 uF 'C75' and missed the 0.0024 uF one! My only excuse is that it was my first
attempt at this project and just missed it. Two other experienced techs proofread the original documents, but ......
:-) I think I'll just record it now, and if I am able to access earlier s/n units evaluate whether to remove the cap
from the schematic, or add a C75a to the Parts list.

Thanks for pointing it out, and I'll let you know if I come up with a 'good' answer! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GALE STEWARD wrote:
>

>
>
>
> ---

> **Hi Garey,
>
> I'm in the process of rewiring the AGC switch on an older R4C (S/N 16961). I'm using the schematic from your CD for
> S/N 16151. This receiver had a Sherwood AGC/relay switch installed which I'm removing to install in another R4C and
> replacing it with a stock switch.
>
> In looking at this schematic (near the AGC transistor Q7) it shows a cap off of the collector designated C75 (.0024).
> However directly above it on the schematic is a .001 cap also designated C75! This cap is (correctly) labeled C75 on
> your pic of the First IF, 2nd mixer, AGC board.
>
> I'm wondering that the correct designation for the .0024 cap is. I haven't removed the circuit board so I don't have
> the best visuals to all of the components.
>
> I did find the correct wire connection to the common of the AGC switch but I was wondering if the "two C75 caps" has
> come up before. BTW, the R4C parts list doesn't list a .0024 cap anywhere, unless I missed it.
>
> 73, Stew K3ND
>
>
>
>

Yahoo Groups Links

http://info.yahoo.com/legal/us/yahoo/utos/terms/

18205. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 21:38:20 UTC
From: Evan Rolek
Topic: 18192 Message: 18205

What, you don't like the hi-fi stereo appearance of the R8?

-----Original Message-----
From: Garey Barrell <k4oah@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Jan 21, 2014 3:42 pm
Subject: Re: [DrakeRadio] New member with R8B

My R-7 still performs nicely with my TR-7. The R-7 even 'looks' like a radio! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

Don Cunningham wrote:
> □
>
> And quite a few of us old, obsolete R7's hanging around too, HI.
> 73,
> Don, WB5HAK
>

18206. Re: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 21:40:48 UTC
From: Van Lincoln
Topic: 18192 Message: 18206

I had one for a year, foolishly sold it.

It's a VERY nice receiver, mine had the 6 and 2 meter converter installed.

wd8aam
van

At 18:11 1/21/2014, you wrote:

>Good afternoon,
>Back in the summer I purchased a R8B used from universal radio. So
>far, I love the radio. Functions excellent and has quality sound.
>Since there is no active R8 groups out there I hope there are a few
>here that will share their thoughts. I have mine set up for computer
>control through SWLog program.
>
>Glenn
>Kd5dga
>
>
>

18207. RE: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 22:16:49 UTC
From: Glenn Blum
Topic: 18192 Message: 18207

I do! I have to admit mine does have the encoder problem, but tune mine via computer. That's the only issue I have with mine.

-----Original Message-----
From: "Evan Rolek" <k9sqg@...>
Sent: ☐1/☐21/☐2014 3:38 PM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@...m>
Subject: Re: [DrakeRadio] New member with R8B

What, you don't like the hi-fi stereo appearance of the R8?

-----Original Message-----
From: Garey Barrell <k4oah@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Jan 21, 2014 3:42 pm
Subject: Re: [DrakeRadio] New member with R8B

My R-7 still performs nicely with my TR-7. The R-7 even 'looks' like a radio! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

Don Cunningham wrote:
> ☐
>
> And quite a few of us old, obsolete R7's hanging around too, HI.
> 73,
> Don, WB5HAK
>

[The entire original message is not included.]

18208. RE: [DrakeRadio] New member with R8B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-21 22:20:17 UTC
From: Glenn Blum
Topic: 18192 Message: 18208

Garey,
I did fill out the request and still waiting approval and that's been 3 months now so I gave up. Looks like I found a home here for my drake questions and answers.
Glenn

-----Original Message-----
From: "Garey Barrell" <k4oah@...>
Sent: ☐1/☐21/☐2014 2:15 PM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] New member with R8B

Glenn -

Yes, it's a pretty inactive group. Still have 600+ subscribers, but last post was Dec 3, 2013. Did you notice this
'Notice' from the info page???

"***NOTE*** If you are requesting membership, you MUST leave a comment in your request as to WHY you want to join. An
empty (no comment) request will be denied."

Anyway, you're welcome here, and there are at least a few 8's around! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Glenn Blum wrote:
>
>
> I tried to join but never got accepted. Even though the R8B is dated radio but still has solid performance. I am
> impressed.
> ----------
> From: Garey Barrell <mailto:k4oah@...>
> Sent: ☐1/☐21/☐2014 1:48 PM
> To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> Subject: Re: [DrakeRadio] New member with R8B
>
> Hi Glenn -
>
> Welcome to the group. You might want to check the Draker8 group here on Yahoo! They are 'dedicated' to the R-8 series.
>

> I imagine I'm not the only one here with an R-8A, so there's probably useful information here as well.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Glenn Blum wrote:
> >
> >
> > Good afternoon,
> > Back in the summer I purchased a R8B used from universal radio. So far, I love the radio. Functions excellent and has
> > quality sound. Since there is no active R8 groups out there I hope there are a few here that will share their
> > thoughts. I have mine set up for computer control through SWLog program.
> >
> > Glenn
> > Kd5dga
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> Yahoo Groups Links
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[The entire original message is not included.]

18209. RE: MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 01:54:15 UTC
From: <kmx888@...>
Topic: 6301 Message: 18209

Great information, now for some questions, please bear with me. If I look around for an MS2T meter I can find them but they seem to be for many uses (Voltage, amperage etc). I have always assumed that most meters are actuated by the movement of current through them. What they are portraying to the user is indicative of the circuitry used to feed the meter. In other words a voltage meter may indicate voltage but is reacting to the amount of current passing through it.

Here is an example of a MS2T meter being used for voltage measurement
.http://www.bmius.com/p-12932-dc-volts.aspx

Can I assume that within the universe of MS2T meters there are several different "innards"? I see from the Jewell catalog that there are many different ranges and resistances.
http://www.jewellinstruments.com/wp-content/uploads/2012/11/Jewell-MS-Series.pdf

If I am correct..... I guess I am on my own with out exact part numbers etc?
Kevin
KD0ILM

18210. RE: MN-2000 Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 14:24:12 UTC
From: <gbeat5@...>
Topic: 6301 Message: 18210

Kevin -

Deal with RAM Meter, which handles these specific questions about Jewell MS series meters and the 4 different movements.
The main support person (I have lost his name) for Analog Meters is a radio amateur.
===
Currently headquartered in Troy, MI with sales offices in Pennsylvania and Connecticut, Ram Meter Inc. has been doing business for over 75 years. It all started in 1936 on a dining room table in northwest Detroit when Russel A. Monnier (R.A.M.) began repairing electrical indicating instruments for United Motors Service, his employer at that time. It wasn't long before he quit his job to dedicate himself to repairing these instruments full time. Russ named the business Ram Meter Service and it has continued to grow ever since.
In 1962, Ram Meter Inc. became one of the first panel meter "Mod Centers", a concept where we bought blank meters in volume from the factory and modified them to the exact specifications of the customer. To this day, we continue to offer that service and can modify analog and digital panel meters with non-standard scaling, company logo's, special calibrations, color bands and just about anything else to help fit your application.

18211. Need parts for Drake PRN-1000 shortwave receiver

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 14:12:01 UTC
From: <patluvsvettes2003@...>
Topic: 18211 Message: 18211

I'm trying to find parts for a Drake PRN-1000 shortwave receiver. This was made back in 1995 according to the date on the circuit board. I need the assemblies for the TONE and VOL ON/OFF. These are both small printed circuit boards with a small potentiometer attached to them. I don't see a part # on either one of them, just the words TONE on the tone control board and VOL ON/OFF on the volume control. Does anyone have a source for where I could purchase these, or at least a part number? This receiver is almost identical to the Drake SW1 shortwave receiver. Thanks!

18212. RE: [DrakeRadio] Need parts for Drake PRN-1000 shortwave receiver

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 15:40:22 UTC
From: Glenn Blum
Topic: 18211 Message: 18212

I saw something the other day there is a ham radio operator out there who refurbishes drake radios. Google drake ham radio. I think that is where I found his website.

-----Original Message-----
From: "patluvsvettes2003@yahoo.com" <patluvsvettes2003@...>
Sent: ☐1/☐22/☐2014 8:12 AM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@...m>
Subject: [DrakeRadio] Need parts for Drake PRN-1000 shortwave receiver

I'm trying to find parts for a Drake PRN-1000 shortwave receiver. This was made back in 1995 according to the date on the circuit board. I need the assemblies for the TONE and VOL ON/OFF. These are both small printed circuit boards with a small potentiometer attached to them. I don't see a part # on either one of them, just the words TONE on the tone control board and VOL ON/OFF on the volume control. Does anyone have a source for where I could purchase these, or at least a part number? This receiver is almost identical to the Drake SW1 shortwave receiver. Thanks!

[The entire original message is not included.]

18213. Re: [DrakeRadio] Need parts for Drake PRN-1000 shortwave receiver

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 16:02:59 UTC
From: Chgypsy@...
Topic: 18211 Message: 18213

Ironically enough there are/ were still a few parts at Drake proper for the communications receivers built in the mid 90's, it can't hurt to ask. John Kriner is the service department there.
Read it all first; _www.RLDrake.com_ (http://www.RLDrake.com) Carl WD8NHK

From: _patluvsvettes2003@..._ (mailto:patluvsvettes2003@...)
Sent: ☐1/☐22/☐2014 8:12 AM
To: _DrakeRadio@yahoogroups.com_ (mailto:DrakeRadio@yahoogroups.com)
Subject: [DrakeRadio] Need parts for Drake PRN-1000 shortwave receiver

I'm trying to find parts for a Drake PRN-1000 shortwave receiver. This was made back in 1995 according to the date on the circuit board.

18214. Sidetone Issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 16:35:19 UTC
From: Michael A. Kelly
Topic: 18214 Message: 18214

Hello everyone,

I have an issue that occurs in both my B and C Line Twins. When I am transmitting CW, using headphones, there is a steady, lower single note sidetone that is continuously heard in the background. The C line's background tone is louder than the B Line. It is independent of the actual CW characters being sent and at a much lower in volume. As such, it might not even be much of an issue if one was not using headphones, but it is very noticeable when you are. Unfortunately I run 100% of the time using headphones.

On the T-4XB, if I turn down the GAIN and drop the power (and the overall level of the sidetone) it becomes much less … and of course, if you turn it down enough then the vox will drop out and it will not remain in transmit… when it is running with enough drive to read about .3 on the plate amp meter, it is low enough that it is tolerable, but I know this is not normal. If I load up to 350 mils, then it is quite a bit louder in the background.

Any idea what this steady sidetone is in the background and how best to remedy it?

Thanks,

Michael NZ4D

18215. Re: [DrakeRadio] Sidetone Issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 16:59:34 UTC
From: Garey Barrell
Topic: 18214 Message: 18215

Michael -

Almost certainly this is the electrolytic cap (C129 T-4XB) or (C107 T-4XC). You can check by connecting a good cap in
parallel with each of these.
Replacement cap(s) available from Hayseedhamfest.com.

Secondary possibility is the switching diode (D8 T-4XB) or (CR15 T-4XC). Check voltage across diode. Should be -0.7
VDC or so key UP, and +15 VDC or more key down.

If no luck, check back here!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael A. Kelly wrote:
>
>
> Hello everyone,
>
>
> I have an issue that occurs in both my B and C Line Twins. When I am transmitting CW, using headphones, there is a
> steady, lower single note sidetone that is continuously heard in the background. The C line's background tone is
> louder than the B Line. It is independent of the actual CW characters being sent and at a much lower in volume. As
> such, it might not even be much of an issue if one was not using headphones, but it is very noticeable when you are.
> Unfortunately I run 100% of the time using headphones.
>
>
> On the T-4XB, if I turn down the GAIN and drop the power (and the overall level of the sidetone) it becomes much less
> ? and of course, if you turn it down enough then the vox will drop out and it will not remain in transmit? when it is
> running with enough drive to read about .3 on the plate amp meter, it is low enough that it is tolerable, but I know
> this is not normal. If I load up to 350 mils, then it is quite a bit louder in the background.
>

>
> Any idea what this steady sidetone is in the background and how best to remedy it?
>
>
> Thanks,
>
>
> Michael NZ4D
>
>
>
>

18216. RE: Sidetone Issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 17:42:54 UTC
From: <k5eh@...>
Topic: 18214 Message: 18216

Micheal,
Had same problem with T4X. C132 open; strapped a 100 ufd across, cleared problem.

73, Jim-K5EH

18217. Re: [DrakeRadio] RE: Sidetone Issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 17:58:56 UTC
From: Garey Barrell
Topic: 18214 Message: 18217

Jim -

Same capacitor! 60 uF @ 250 VDC Twist-Lok. Risky to just add one across, as original may still fail shorted. Best
to replace, or at least clip leads to disconnect original from circuit.

X = C132
XB = C129
XC = C107

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k5eh@... wrote:
>
>
> Micheal,
> Had same problem with T4X. C132 open; strapped a 100 ufd across, cleared problem.
>
> 73, Jim-K5EH

18218. Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 19:15:22 UTC
From: <dcoffman@...>
Topic: 18218 Message: 18218

I'm looking at implementing the N3ZI Supper DDS to control the transmit and receive frequency of my C-Line Twins. My thought was to build the DDS in a separate enclosure and attach it to the injection line of the R-4C to control the TX/RX; leaving the injection line disconnected from the T-4XC.

It is my understanding that the DDS does not have enough output to properly drive the injection line so a buffered amp may be required. Has anyone experimented with this and what are the thoughts of this implementation? I do not want to disturb the transmitter or the receiver but would be nice to have an external frequency display with the ability to accurately change frequency.

Thanks,

Doug - N9XTF

18219. Re: [DrakeRadio] Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 19:59:26 UTC
From: Lee Hiers
Topic: 18218 Message: 18219

On Wed, Jan 22, 2014 at 2:15 PM, <dcoffman@...> wrote:
>
> It is my understanding that the DDS does not have enough output to
> properly drive the injection line so a buffered amp may be required. Has
> anyone experimented with this and what are the thoughts of this
> implementation?
>
I've been working (slowly) on using one of the AD9850 eBay modules to use as an FS-4 replacement. I've got the software kinda done and breadboarded up the circuit. I still need to add a buffer amp I think...I'll probably clone the W8DIZ all-purpose RF amp for that.

I used an SI570, which had a little more output than the AD9850 does (I think...haven't measured it), and it seemed to work OK, but I wanted to fancy it up a little and use an Arduino to control the DDS. I've got the software mostly done - for phase 1, anyway. Phase 2 is to add a frequency counter for digital display.

I thought about just using the DDS as a VFO through the AUX XTAL inputs, but decided against that...mostly because I wanted to tune with the PTO. I was able to read the frequency from the INJ jack in my R-4, so it looks like adding a digital display won't be very difficult.

Hopefully I'll get off my lazy hind-quarters and finish this up before too long...I've started putting the parts on a perfboard, but now I've got to wire them all together - so far I've got my 5v supply done...I'll be sure and post here when I do finish up, and will look forward to hearing how your project turns out.

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18220. Re: [DrakeRadio] Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 20:32:50 UTC
From: Garey Barrell
Topic: 18218 Message: 18220

Doug -

I haven't tried it, but the first step would be to determine the input impedance of the INJ jacks on the R-4C and T-4XC.
Then a simple transformer will probably suffice. You need about 1.5 - 2 VRMS at the PreMixer frequency (7.3 - 35.6 MHz)
into either INJ input.

You might take a look at the PHSNA project Yahoo group for ideas. We used either a 2N5109 buffer or an MCI ERA-3+ MMIC
to get about +10 dBm into 50 ohms (0.7 VRMS) from a 9850/51. You need about +20 dBm _into 50 ohms_. I suspect the
input impedance is considerably higher, allowing use of a simple transformer to get the higher voltage.

Really not nearly as simple a project as it looks, to do it right. Do you REALLY need to know your frequency to better
than +/- 100 kHz?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
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> I'm looking at implementing the N3ZI Supper DDS to control the transmit and receive frequency of my C-Line Twins. My
> thought was to build the DDS in a separate enclosure and attach it to the injection line of the R-4C to control the
> TX/RX; leaving the injection line disconnected from the T-4XC.
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> may be required. Has anyone experimented with this and what are the thoughts of this implementation? I do not want
> to disturb the transmitter or the receiver but would be nice to have an external frequency display with the ability to
> accurately change frequency.
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> Thanks,

>
>
> Doug - N9XTF
>
>

18221. Re: [DrakeRadio] Need parts for Drake PRN-1000 shortwave receiver

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 20:49:43 UTC
From: vacuuminded2@...
Topic: 18211 Message: 18221

Contact John Kriner, tr7dude on eBay.

I believe he retired from Drake a few years ago, but he has/sells a lot of NOS parts.

GL
Chris

Sent from my outdated iPhone wireless thingy

On Jan 22, 2014, at 8:12 AM, <patluvsvettes2003@...> wrote:

> I'm trying to find parts for a Drake PRN-1000 shortwave receiver. This was made back in 1995 according to the date on the circuit board. I need the assemblies for the TONE and VOL ON/OFF. These are both small printed circuit boards with a small potentiometer attached to them. I don't see a part # on either one of them, just the words TONE on the tone control board and VOL ON/OFF on the volume control. Does anyone have a source for where I could purchase these, or at least a part number? This receiver is almost identical to the Drake SW1 shortwave receiver. Thanks!
>
>

18222. RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 20:53:21 UTC
From: <dcoffman@...>
Topic: 18218 Message: 18222

Garey,

I really expected some severe blow back from hard core boat anchor guys on this one. No, the frequency accuracy is not of great concern however; it would be easier to get on the correct frequency when operating SSB, when in a group, instead of attempting to tune to one person's voice. It would also be nice to see if the VFO were drifting and compensate for it.

As always, I greatly appreciate the information. I knew it wasn't going to be a simple plug and play thing but was not sure how much trouble I was going to get into.

73,

Doug - N9XTF

18223. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 21:25:24 UTC
From: Garey Barrell
Topic: 18218 Message: 18223

Doug -

As pointed out by another list member (privately!) I should have said "+/- 0.1 kHz"..... My Heathkit AR-3 can get
better than +/- 100 kHz..... :-)

I'm probably the biggest Luddite on here when it comes to modifying Drake gear. As long as it's not destroying the
gear, I don't have a problem with someone doing it to 'their' radio, but I WILL ask _WHY?_!!

I'm about 98% CW, so find it hard to understand the _MUST BE ON CHANNEL_ meme of the SSB crowd. It's hard to find a
QSO now that is NOT on some even 5 or 10 kHz frequency. I musta missed when the FCC made us 'channelized'. :-)

I've heard arguments go on for longer than I cared to listen between members of a group about what frequency they were
on. In many cases, NONE of them were actually on THE supposed frequency.....

Hopefully you'll hear from others on here who have more to contribute to the project! I've built a half dozen DDS
(9850/51) and Si570 projects, including a couple of the N3ZI offerings, and just completed the PHSNA project. I must
admit to loving my little 5- Ensemble SDR receiver that I built about 2-3 years ago with the Si570 BAND oscillator.

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18224. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 21:45:14 UTC
From: W6IDS
Topic: 18218 Message: 18224

UH. . . . getting on the correct frequency when operating SSB instead of just tuning to one person's voice. . . . . . that's what I've been doing for
50-plus years. Having someone else off a slight nudge never seemed to bother me - unless they got set up far enough off that you KNEW they must be tone deaf.

I tune for what seems to be a "natural" sounding voice whether digital dial or analog. May be wrong today but I'm just sayin'. . . . . If you happen to dial across a QSO in progress, what then? I just tune until it sounds "right" to me.

The only time I concern myself with the correct frequency is with digital signals and I need to know the center frequency.

Howard W6IDS
Richmond, IN

-----Original Message-----
From: Garey Barrell
Sent: Wednesday, January 22, 2014 4:25 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Doug -

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> 73,
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> Doug - N9XTF
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18225. Re: [DrakeRadio] Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 21:49:21 UTC
From: Dieter Horst
Topic: 18218 Message: 18225

Hello Doug,

much has been said already. An MMIC is definitely a good choice due to it's simplicity. All it needs is two decoupling capacitors, a resistor and a choke. 50 ohms both on input and output already, so no hassle with matching. I used an ERA6 in my DDS for the TR7 but the level is a lot lower there, just about 4 dBm.

So you may use the ERA6 (or another ERA) as a driver after your AD9850 and then transform your voltage up using e. g. an Amidon FT50-43 core as a 1:4 oder 1:9 transformer. A lot can be found on the internet about how to wire it up. Just google "FT50-43 1:4". Make sure you terminate the transformer with the correct impedance like 200 ohms or 450 ohms and measure the voltage with a scope or an HF voltmeter.

Good luck

Dieter DL5RDO

Am 22.01.2014 20:15, schrieb dcoffman@...:
>
> I'm looking at implementing the N3ZI Supper DDS to control the
> transmit and receive frequency of my C-Line Twins. My thought was to
> build the DDS in a separate enclosure and attach it to the injection
> line of the R-4C to control the TX/RX; leaving the injection line
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> properly drive the injection line so a buffered amp may be required.
> Has anyone experimented with this and what are the thoughts of this
> implementation? I do not want to disturb the transmitter or the
> receiver but would be nice to have an external frequency display with
> the ability to accurately change frequency.
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> Thanks,
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> Doug - N9XTF
>
>

18226. RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 21:51:23 UTC
From: <dcoffman@...>
Topic: 18218 Message: 18226

Garey,

Based on your suggestion this summer, I acquired and built the Ensemble RX II I believe it was. Quite a fun little receiver and I must admit it receives really weak signals quite well!!!

I've always tuned my transceivers or receivers to what sounds normal to the ear. People do make a point to point out when I'm off frequency. I do not have an issue on my solid state stuff but the tube gear is a different story.

Thanks for all the input,

Doug - N9XTF

18227. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 21:58:23 UTC
From: K5MYJ
Topic: 18218 Message: 18227

I monitored the VHF contest last weekend. In most cases no one was on the same exact frequency. I had to tweak the LMO on the SB-301 for most if I wanted to understand them.

Even if everyone had a digital VFO the transverter LOs are not all on frequency. And most of these people do not have the test equipment of knowledge to fix the problem.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: W6IDS
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 22, 2014 1:45 PM
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

UH. . . . getting on the correct frequency when operating SSB instead of just tuning to one person's voice. . . . . that's what I've been doing for
50-plus years. Having someone else off a slight nudge never seemed to bother me - unless they got set up far enough off that you KNEW they must be tone deaf.

I tune for what seems to be a "natural" sounding voice whether digital dial or analog. May be wrong today but I'm just sayin'. . . . . If you happen to dial across a QSO in progress, what then? I just tune until it sounds "right" to me.

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Howard W6IDS
Richmond, IN

-----Original Message-----
From: Garey Barrell
Sent: Wednesday, January 22, 2014 4:25 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

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> 73,
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> Doug - N9XTF

>
>

18228. RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 22:29:34 UTC
From: Kris Merschrod
Topic: 18218 Message: 18228

The comment in the Super DDS thread on being on frequency brings me to a day-dream , making an RIT board as per the TR-4CW/RIT and adding it to a TR-4C. Has anyone made one of the RIT boards as per the diagram in the manual?

Not using the NB knob would free up an existing hole in the front panel, and a push on off in a 10k pot should be an easy retro fit (and easy restrore to original) for the RIT control.

But has anyone done it?

Kris KM2KM

18229. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 22:51:14 UTC
From: john
Topic: 18218 Message: 18229

I thought this was what RIT was invented for?

John K5MO

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18230. - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-22 23:33:56 UTC
From: rf200655
Topic: 18230 Message: 18230

Can not get .07 on meter . Checked V5& V6 PIN 2 have -60 V Checked the meter resistors the diode the switch ,meter .
Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust - Bias .

HELP
73 Ray

18231. Re: [DrakeRadio] - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 00:36:52 UTC
From: Richard Knoppow
Topic: 18230 Message: 18231

----- Original Message -----
From: "rf200655" <crf2@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, January 22, 2014 3:33 PM
Subject: [DrakeRadio] - Bias T4XB

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> Checked the meter resistors the diode the switch ,meter .
> Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust -
> Bias .
>
>
>
>
> HELP
> 73 Ray

Check the value of the cathode resistors of the finals.
If they are off value (quite common) replace them. Garey
recommends metal oxide thick film type. If they are on value
measure the drop across each one. This will tell you the
cathode current of each tube. If you have correct voltages
on all tube electrodes and low current it is usually due to
weak tubes but measure the current at the cathode resistors
before deciding the tubes are NG. Be careful because there
is high voltage in the compartment from the screen supply.
If you get the correct voltage at the cathodes
(indicating correct current) you must go over the metering
circuit again. There are many carbon composition resistors
in the T4XB. Depending on the brand they may be quite close
to value or have drifted very high. On my T4XB I found two
different kinds of resistor, one with a smooth case, the
other with a seam. The smooth one was within specs, the
seamed one, I think something like 50% high. They are not
to be trusted.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18232. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 00:54:32 UTC
From: W6IDS
Topic: 18218 Message: 18232

OH, yeppir. . . . . you’re right on the money there. Situation normal for sure.
You certainly can hear this on HF too, as I’m sure you have. Along with
Garey’s comments about “channelization.”

Howard W6IDS

From: K5MYJ
Sent: Wednesday, January 22, 2014 4:58 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

☐

I monitored the VHF contest last weekend. In most cases no one was on the same exact frequency. I had to tweak the LMO on the SB-301 for most if I wanted to understand them.

Even if everyone had a digital VFO the transverter LOs are not all on frequency. And most of these people do not have the test equipment of knowledge to fix the problem.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: W6IDS
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 22, 2014 1:45 PM
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

UH. . . . getting on the correct frequency when operating SSB instead of
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-----Original Message-----
From: Garey Barrell
Sent: Wednesday, January 22, 2014 4:25 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Doug -

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<SNIP>

18233. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 01:06:11 UTC
From: K5MYJ
Topic: 18218 Message: 18233

The problem I have with SSB contests is they don't talk long enough to let you tune them in!

I'm not a contester but I use the contests to check receivers.

I can see what kind of path we have here to Seattle.

Bob Macklin
K5MYJ
Seattle, Wa.
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<SNIP>

18234. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 01:15:00 UTC
From: Garey Barrell
Topic: 18218 Message: 18234

Kris -

Not that simple. The RIT PTO only has a varicap and associated circuitry in it to allow RIT, similar to the 7 Line
PTO. The small PC board with an analog switch IC (MC14016) merely sets the bias for the varicap and does the switching
back and forth.

It might be possible to 'pull' the band oscillator a little with a varicap, but I'd be reluctant to muck around in the
PTO. It might also be possible to shift the CAR OSC but it would have to be switched back out for transmit.

Not a trivial task, in any event.

73, Garey - K4OAH
Glen Allen, VA

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> easy retro fit (and easy restrore to original) for the RIT control.
> But has anyone done it?
> Kris KM2KM
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>

18235. Re: [DrakeRadio] - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 01:28:24 UTC
From: Garey Barrell
Topic: 18230 Message: 18235

Ray -

You're not clear if you are measuring NO, too little, or too much PLATE current.

Check voltages on all PA tube pins. IF the Plate and Screen voltages are present and the Cathode is grounded, the tubes
will pull maximum current, to destruction! A negative voltage on the Grids (~ -62 VDC) limits that current to 0.07A.
This is regardless of any other voltage or stage in the radio. The Cathode pins in SSB should read about 150 VDC key or
PTT up, and about 0.5 VDC key down or TUNE position. The 15 ohm Cathode resistors of the PA should drop about 0.53 VDC
each, IF they are 15 ohms. Measure! You can measure the voltage drop across R36 to measure actual current. Verify
that R36 is 2.7 Ohms.

If voltages are good and still no current, the PA tube(s) are bad. I HAVE seen tubes that heat and look good that will
pass NO current. Most likely you have a resistor or two that has gone up in value with age, probably R32 and/or R33.

Be careful measuring in the PA compartment UNDER the chassis, as both Plate and Screen voltages are present. HIGH VOLTAGE!!

73, Garey - K4OAH
Glen Allen, VA

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18236. Re: [DrakeRadio] - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 01:33:51 UTC
From: <crf2@...>
Topic: 18230 Message: 18236

Garey

No current

73
Ray
---- Garey Barrell <k4oah@...> wrote:
> Ray -
>
> You're not clear if you are measuring NO, too little, or too much PLATE current.
>
> Check voltages on all PA tube pins. IF the Plate and Screen voltages are present and the Cathode is grounded, the tubes
> will pull maximum current, to destruction! A negative voltage on the Grids (~ -62 VDC) limits that current to 0.07A.
> This is regardless of any other voltage or stage in the radio. The Cathode pins in SSB should read about 150 VDC key or
> PTT up, and about 0.5 VDC key down or TUNE position. The 15 ohm Cathode resistors of the PA should drop about 0.53 VDC
> each, IF they are 15 ohms. Measure! You can measure the voltage drop across R36 to measure actual current. Verify
> that R36 is 2.7 Ohms.
>
> If voltages are good and still no current, the PA tube(s) are bad. I HAVE seen tubes that heat and look good that will
> pass NO current. Most likely you have a resistor or two that has gone up in value with age, probably R32 and/or R33.
>
> Be careful measuring in the PA compartment UNDER the chassis, as both Plate and Screen voltages are present. HIGH VOLTAGE!!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> rf200655 wrote:
> > Can not get .07 on meter . Checked V5& V6 PIN 2 have -60 V Checked the meter resistors the diode the switch ,meter .
> > Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust - Bias .
> >
> >
>

18237. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 01:48:01 UTC
From: Kris Merschrod
Topic: 18218 Message: 18237

Thank you Garey for waking me up from a mid-winter's daydream!

Kris KM2Km
----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 22, 2014 8:15 PM
Subject: Re: [DrakeRadio] RIT for a TR-4C

Kris -

Not that simple. The RIT PTO only has a varicap and associated circuitry in it to allow RIT, similar to the 7 Line
PTO. The small PC board with an analog switch IC (MC14016) merely sets the bias for the varicap and does the switching
back and forth.

It might be possible to 'pull' the band oscillator a little with a varicap, but I'd be reluctant to muck around in the
PTO. It might also be possible to shift the CAR OSC but it would have to be switched back out for transmit.

Not a trivial task, in any event.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Kris Merschrod wrote:
> □
>
> The comment in the Super DDS thread on being on frequency brings me to a day-dream , making an RIT board as per the
> TR-4CW/RIT and adding it to a TR-4C. Has anyone made one of the RIT boards as per the diagram in the manual?
> Not using the NB knob would free up an existing hole in the front panel, and a push on off in a 10k pot should be an
> easy retro fit (and easy restrore to original) for the RIT control.
> But has anyone done it?
> Kris KM2KM
>
>
>

18238. Re: [DrakeRadio] parts for Drake

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 02:05:37 UTC
From: Chgypsy@...
Topic: 18238 Message: 18238

Did not retire he is the service department still. Carl WD8NHK

vacuuminded2@... writes:

Contact John Kriner, tr7dude on eBay.
I believe he retired from Drake a few years ago, but he has/sells a lot of
NOS parts.
Chris

18239. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 02:37:58 UTC
From: Steve Toth
Topic: 18218 Message: 18239

Think about it a different way: Run the twins in transceiver mode and connect a digital dial to the injection jack via a "Y" connector - I run transceiver mode with the R4C controlling the frequency of both units and have a Digital Dial on the R4C injection line here. I can easily check the calibration the Digital Dial against my Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, dcoffman@... <dcoffman@...> wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: DrakeRadio@yahoogroups.com
Date: Wednesday, January 22, 2014, 12:53 PM

Garey,
I really expected some severe blow back from hard
core boat anchor guys on this one. No, the frequency
accuracy is not of great concern however; it would be easier
to get on the correct frequency when operating SSB, when in
a group, instead of attempting to tune to one person's
voice. It would also be nice to see if the VFO were
drifting and compensate for it.
As always, I greatly appreciate the
information. I knew it wasn't going to be a simple
plug and play thing but was not sure how much trouble I was
going to get into.
73,
Doug - N9XTF

18240. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 02:54:00 UTC
From: K5MYJ
Topic: 18218 Message: 18240

When you run the twins in transceiver mode you do not have independent tuning of the receiver. So if you adjust the VFO to clarify the speech you also change your transmitting frequency.

I also have a Kenwood TS-520. It has a RIT knob that works very well.

When I use one of the sets of twins I ZERO BEAT the transmitter against the receiver then never touch the transmitter VFO again. I can fine tune the receiver all I want and the other person is not aware of it.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Steve Toth
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 22, 2014 6:37 PM
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Think about it a different way: Run the twins in transceiver mode and connect a digital dial to the injection jack via a "Y" connector - I run transceiver mode with the R4C controlling the frequency of both units and have a Digital Dial on the R4C injection line here. I can easily check the calibration the Digital Dial against my Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, dcoffman@pdswireless.com <dcoffman@...> wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: DrakeRadio@yahoogroups.com
Date: Wednesday, January 22, 2014, 12:53 PM

Garey,
I really expected some severe blow back from hard
core boat anchor guys on this one. No, the frequency
accuracy is not of great concern however; it would be easier
to get on the correct frequency when operating SSB, when in
a group, instead of attempting to tune to one person's
voice. It would also be nice to see if the VFO were

drifting and compensate for it.
As always, I greatly appreciate the
information. I knew it wasn't going to be a simple
plug and play thing but was not sure how much trouble I was
going to get into.
73,
Doug - N9XTF

18241. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 04:34:48 UTC
From: Doug
Topic: 18218 Message: 18241

Steve,

I've had a brief look at that unit. It does not have the capability of changing frequency does it? As far as I can tell its a frequency counter only?

Thanks,

Doug-N9XTF

Sent from my iPhone

> On Jan 22, 2014, at 21:37, Steve Toth <stoth47@...> wrote:
>
> Think about it a different way: Run the twins in transceiver mode and connect a digital dial to the injection jack via a "Y" connector - I run transceiver mode with the R4C controlling the frequency of both units and have a Digital Dial on the R4C injection line here. I can easily check the calibration the Digital Dial against my Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.
> -- Steve
>
> "To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill
>
> ---
> On Wed, 1/22/14, dcoffman@... <dcoffman@...> wrote:
>
> Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
> To: DrakeRadio@yahoogroups.com
> Date: Wednesday, January 22, 2014, 12:53 PM
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> Garey,
> I really expected some severe blow back from hard
> core boat anchor guys on this one. No, the frequency
> accuracy is not of great concern however; it would be easier
> to get on the correct frequency when operating SSB, when in
> a group, instead of attempting to tune to one person's
> voice. It would also be nice to see if the VFO were
> drifting and compensate for it.
> As always, I greatly appreciate the
> information. I knew it wasn't going to be a simple
> plug and play thing but was not sure how much trouble I was
> going to get into.
> 73,
> Doug - N9XTF
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http://www.pdswireless.com

18242. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 05:08:37 UTC
From: K5MYJ
Topic: 18218 Message: 18242

If you really need a DIGITAL VFO use a RICEBOX!

The digital dial will give you the frequency accuracy if you really need it.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----
From: Doug
To: DrakeRadio@yahoogroups.com
Cc: DrakeRadio@yahoogroups.com
Sent: Wednesday, January 22, 2014 8:34 PM
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Steve,

I've had a brief look at that unit. It does not have the capability of changing frequency does it? As far as I can tell its a frequency counter only?

Thanks,

Doug-N9XTF

Sent from my iPhone

On Jan 22, 2014, at 21:37, Steve Toth <stoth47@...> wrote:

Think about it a different way: Run the twins in transceiver mode and connect a digital dial to the injection jack via a "Y" connector - I run transceiver mode with the R4C controlling the frequency of both units and have a Digital Dial on the R4C injection line here. I can easily check the calibration the Digital Dial against my Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, dcoffman@... <dcoffman@...> wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: DrakeRadio@yahoogroups.com
Date: Wednesday, January 22, 2014, 12:53 PM

Garey,
I really expected some severe blow back from hard
core boat anchor guys on this one. No, the frequency
accuracy is not of great concern however; it would be easier
to get on the correct frequency when operating SSB, when in
a group, instead of attempting to tune to one person's
voice. It would also be nice to see if the VFO were
drifting and compensate for it.
As always, I greatly appreciate the
information. I knew it wasn't going to be a simple
plug and play thing but was not sure how much trouble I was
going to get into.
73,
Doug - N9XTF

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18243. Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:11:26 UTC
From: <N9JCQ@...>
Topic: 18243 Message: 18243

I found a brand new TR7 mobile power cord in a drawer. I have no clue when I got it but I had a basic question regarding it. It has three leads, red, black and white. I know red is positive and black is negative but what is white used for. I looked up the the cord in the drake manual but I can't see where the white lead comes into the schematic.
Joe N9JCQ

18244. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:22:45 UTC
From: Garey Barrell
Topic: 18243 Message: 18244

Joe -

I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
and the PA only via Pin 13. ??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

N9JCQ@... wrote:
>
>
> I found a brand new TR7 mobile power cord in a drawer. I have no clue when I got it but I had a basic question
> regarding it. It has three leads, red, black and white. I know red is positive and black is negative but what is
> white used for. I looked up the the cord in the drake manual but I can't see where the white lead comes into the
> schematic.
> Joe N9JCQ
>
>

18245. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:33:49 UTC
From: Chgypsy@...
Topic: 18243 Message: 18245

Hi Garey,

To the group, Gary is correct. I have one of these. Was when my local radio club was running mobile using TR7's (long time ago) and the white does in fact feed positive on a separate pin from the red. Low bat. drain configuration. Normally a slightly smaller gauge wire on the white. Carl WD8NHK

k4oah@... writes:

I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
and the PA only via Pin 13. ??

73, Garey - K4OAH
Glen Allen, VA

18246. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:45:28 UTC
From: Steve Toth
Topic: 18218 Message: 18246

You are correct in that it is a frequency counter only.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, Doug <dcoffman@...> wrote:

Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Cc: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Date: Wednesday, January 22, 2014, 8:34 PM

Steve,
I've had a brief look at that unit. It does
not have the capability of changing frequency does it?
 As far as I can tell its a frequency counter
only?
Thanks,
Doug-N9XTF

Sent from my iPhone
On Jan 22, 2014, at 21:37, Steve Toth <stoth47@yahoo.com>
wrote:

Think about it a different way: Run the twins in
transceiver mode and connect a digital dial to the injection
jack via a "Y" connector - I run transceiver mode
with the R4C controlling the frequency of both units and
have a Digital Dial on the R4C injection line here. I can
easily check the calibration the Digital Dial against my
Icom R70 and it's as accurate as the Icom that reads
three digits to the right of the decimal. Check out the ESP
DD-103. That's pretty plug and play.

-- Steve

"To every man there comes in his lifetime that special
moment when he is physically tapped on the shoulder and
offered the chance to do a very special thing, unique to him
and fitted to his talent; what a tragedy if that moment
finds him unprepared or unqualified for the work which would
be his finest hour." - Winston Churchill

On Wed, 1/22/14, dcoffman@...
<dcoffman@pdswireless.com>
wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

To: DrakeRadio@yahoogroups.com

Date: Wednesday, January 22, 2014, 12:53 PM

Garey,

I really expected some severe blow back from hard

core boat anchor guys on this one. No, the frequency

accuracy is not of great concern however; it would be
easier

to get on the correct frequency when operating SSB, when
in

a group, instead of attempting to tune to one person's

voice. It would also be nice to see if the VFO were

drifting and compensate for it.

As always, I greatly appreciate the

information. I knew it wasn't going to be a
simple

plug and play thing but was not sure how much trouble I
was

going to get into.

73,

Doug - N9XTF

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18247. Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:50:22 UTC
From: K5MYJ
Topic: 18218 Message: 18247

Putting a DDS in place of the PTO does not solve the problem of frequency accuracy. You would need to replace the heterodyne oscillator with a DDS also.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Steve Toth
To: DrakeRadio@...m
Sent: Thursday, January 23, 2014 8:45 AM
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

You are correct in that it is a frequency counter only.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, Doug <dcoffman@...> wrote:

Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Cc: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Date: Wednesday, January 22, 2014, 8:34 PM

Steve,
I've had a brief look at that unit. It does
not have the capability of changing frequency does it?
As far as I can tell its a frequency counter
only?
Thanks,
Doug-N9XTF

Sent from my iPhone
On Jan 22, 2014, at 21:37, Steve Toth <stoth47@...>
wrote:

Think about it a different way: Run the twins in
transceiver mode and connect a digital dial to the injection
jack via a "Y" connector - I run transceiver mode
with the R4C controlling the frequency of both units and
have a Digital Dial on the R4C injection line here. I can
easily check the calibration the Digital Dial against my

Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.

-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---

On Wed, 1/22/14, dcoffman@...
<dcoffman@...m>
wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

To: DrakeRadio@yahoogroups.com

Date: Wednesday, January 22, 2014, 12:53 PM

Garey,

I really expected some severe blow back from hard

core boat anchor guys on this one. No, the frequency

accuracy is not of great concern however; it would be easier

to get on the correct frequency when operating SSB, when in

a group, instead of attempting to tune to one person's

voice. It would also be nice to see if the VFO were

drifting and compensate for it.

As always, I greatly appreciate the

information. I knew it wasn't going to be a simple

plug and play thing but was not sure how much trouble I was

going to get into.

73,

Doug - N9XTF

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18248. SPR-4 Frequency Decals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:47:32 UTC
From: Bob Jackson
Topic: 18248 Message: 18248

I'm in need of the frequency decals/stickers for an SPR-4. I'll buy a whole roll or parts thereof. Any help will be very much appreciated.

Thanks & 73,

Bob AG5X

18249. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 16:57:20 UTC
From: N9JCQ@...
Topic: 18243 Message: 18249

You know Garey, that was what I was thinking. As a lark, I hooked up the cable to a 35 amp Astron I have... Hooking up just the red and black leads. I measure the voltage out of the plug and got 13.5 volts out pins 13/14 and there was no voltage on 15/16. I can always hook up the white lead and measure .. just not hooking up the TR7.

-----Original Message-----
From: Garey Barrell <k4oah@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 10:22 am
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Joe -

I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
and the PA only via Pin 13. ??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

N9JCQ@... wrote:
>
>
> I found a brand new TR7 mobile power cord in a drawer. I have no clue when I got it but I had a basic question
> regarding it. It has three leads, red, black and white. I know red is positive and black is negative but what is
> white used for. I looked up the the cord in the drake manual but I can't see where the white lead comes into the
> schematic.
> Joe N9JCQ
>
>

18250. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 17:08:15 UTC
From: Garey Barrell
Topic: 18243 Message: 18250

Joe -

Correct. The power connector on the TR-7 has two DC inputs. Pin 15 is the radio, with the exception of the PA stages.
Pin 13 is the PA stages only. Both must be present for the radio to operate.

The reason is that the heavy current causes the voltage to drop when the radio is keyed, even with very large wire. By
powering the radio from a separate lead, they eliminated dimming of the panel lights and other regulation problems. Now
the voltage at the radio is only affected by the regulation capability of the power source rather than the drop across
the PA power lead.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

N9JCQ@... wrote:
>
>
> You know Garey, that was what I was thinking. As a lark, I hooked up the cable to a 35 amp Astron I have... Hooking
> up just the red and black leads. I measure the voltage out of the plug and got 13.5 volts out pins 13/14 and there
> was no voltage on 15/16. I can always hook up the white lead and measure .. just not hooking up the TR7.
>
>
> -----Original Message-----
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
>
> Joe -
>
> I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
> and the PA only via Pin 13. ??
>
> 73, Garey - K4OAH
> Glen Allen, VA

>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com> <http://www.k4oah.com%3E>;
>
> N9JCQ@... <mailto:N9JCQ@...> wrote:
> >
> >
> > I found a brand new TR7 mobile power cord in a drawer. I have no clue when I got it but I had a basic question
> > regarding it. It has three leads, red, black and white. I know red is positive and black is negative but what is
> > white used for. I looked up the the cord in the drake manual but I can't see where the white lead comes into the
> > schematic.
> > Joe N9JCQ
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>

18251. Re: [DrakeRadio] SPR-4 Frequency Decals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 17:23:24 UTC
From: geoffrey mendelson
Topic: 18248 Message: 18251

On 1/23/2014 6:47 PM, Bob Jackson wrote:
>
> I'm in need of the frequency decals/stickers for an SPR-4. I'll buy a
> whole roll or parts thereof. Any help will be very much appreciated.
>
TR7DUDE on eBay sells them.

I have been told that a Brother P-Touch label maker can be configured to make them, but I have never actually tried. I have a P-Touch and an SPR-4, maybe someday I'll do it and document it, if no one comes forward.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18252. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 17:25:08 UTC
From: N9JCQ@...
Topic: 18243 Message: 18252

Much in the same way the Atlas set up their powering I suppose. Thanks Garey!

-----Original Message-----
From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 11:07 am
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Joe -

Correct. The power connector on the TR-7 has two DC inputs. Pin 15 is the radio, with the exception of the PA stages.
Pin 13 is the PA stages only. Both must be present for the radio to operate.

The reason is that the heavy current causes the voltage to drop when the radio is keyed, even with very large wire. By
powering the radio from a separate lead, they eliminated dimming of the panel lights and other regulation problems. Now
the voltage at the radio is only affected by the regulation capability of the power source rather than the drop across
the PA power lead.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

N9JCQ@aol.com wrote:
>
>
> You know Garey, that was what I was thinking. As a lark, I hooked up the cable to a 35 amp Astron I have... Hooking
> up just the red and black leads. I measure the voltage out of the plug and got 13.5 volts out pins 13/14 and there
> was no voltage on 15/16. I can always hook up the white lead and measure .. just not hooking up the TR7.
>
>
> -----Original Message-----
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
>
> Joe -

>
> I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
> and the PA only via Pin 13. ??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>; <http://www.k4oah.com%3E>;;
>
> N9JCQ@... <mailto:N9JCQ@...>; wrote:
> >
> >
> > I found a brand new TR7 mobile power cord in a drawer. I have no clue when I got it but I had a basic question
> > regarding it. It has three leads, red, black and white. I know red is positive and black is negative but what is
> > white used for. I looked up the the cord in the drake manual but I can't see where the white lead comes into the
> > schematic.
> > Joe N9JCQ
> >
> >
>
>
>
>

18253. Re: [DrakeRadio] SPR-4 Frequency Decals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 17:40:16 UTC
From: Bob Jackson
Topic: 18248 Message: 18253

Thanks, Geoff! Do you have any further info on that, i.e. materials, settings, etc.? I'm not familiar with label makers, Brothers or otherwise, but I could get interested quick, fast and in a hurry if it would work!

Bob

----- Original Message -----
From: geoffrey mendelson
To: DrakeRadio@yahoogroups.com
Sent: Thursday, January 23, 2014 11:23 AM
Subject: Re: [DrakeRadio] SPR-4 Frequency Decals

On 1/23/2014 6:47 PM, Bob Jackson wrote:

I'm in need of the frequency decals/stickers for an SPR-4. I'll buy a whole roll or parts thereof. Any help will be very much appreciated.

TR7DUDE on eBay sells them.

I have been told that a Brother P-Touch label maker can be configured to make them, but I have never actually tried. I have a P-Touch and an SPR-4, maybe someday I'll do it and document it, if no one comes forward.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18254. Re: [DrakeRadio] SPR-4 Frequency Decals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 17:48:46 UTC
From: geoffrey mendelson
Topic: 18248 Message: 18254

On 1/23/2014 7:40 PM, Bob Jackson wrote:
>
> Thanks, Geoff! Do you have any further info on that, i.e. materials,
> settings, etc.? I'm not familiar with label makers, Brothers or
> otherwise, but I could get interested quick, fast and in a hurry if it
> would work!
>

Bob, You are welcome.

I don't know much, except that you want to use transparent tape for the final label, and use vertical mode. The trick is to figure out which size, spacing and so on, and I don't know them.

The machines are relatively cheap, and have many uses besides SPR-4 dials.

I have a handheld one, there are desktop ones (slightly larger and a different shape) and a USB printer. The USB printer seems attractive to me because I could experiment and it would be easily repeated, but I never got around to buying one, the handheld works so well.
http://www.brother-usa.com/Ptouch/

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18255. R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 18:01:07 UTC
From: <teamkarst@...>
Topic: 18255 Message: 18255

My R4A, 11 tube box has a bit of sensitivity to RF fields. Something I might expect more with solid state gear, but here is my situation. I use a headset, and I hear what you may call splatter in the earpiece during transmit. I can also hear a tone during tuneup of the transmitter. This audio is not affected by the Rx volume control. It does also present itself thru the speaker, with the headset disconnected.
And the last big item; it only happens with the SB220 on! Operating position is in the basement, with the flat top dipole about 45' above ground, but only maybe 30' offset from the station, so is maybe a total of 60-70 feet away. RG8X feed, no line chokes, using a MN2000 tuner. No doubt, there is some local coax radiation.
That all said, the interference goes away, if I move the Rx line cord to a different AC outlet (same branch circuit) from the Tx/AC4. Since I use a outlet strip to control the 4-line power on/off, I'm bound and determined to fix this, a couple of snap-on's on the R4 line cord didn't make a noticeable difference. My next step is to try an ISOBAR power strip, that has built-in RF filtering.
Is this affect seen by anyone else here?

WB4SPT

18256. Re: [DrakeRadio] R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 18:18:23 UTC
From: Garey Barrell
Topic: 18255 Message: 18256

That's a new one! :-)

I wonder if the 'stuff' is coming out of the SB220 and merely being detected by the R-4A? I guess I would check that
the AVC line in the R-4A is correct. A leaky filter cap could be loading down the -80 VDC supply. The AVC line should
go to about -30 VDC in STANDBY, which thoroughly shuts off the RF and IF stages.

Since it's a Late one, it has solid state low level audio, which might be more susceptible to strong RF fields. I don't
see HF getting into those stages any way other than the speaker leads. Might try your ferrites on those, and/or
shorten, coil or re-route them.

Please let us know what you find!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

teamkarst@... wrote:
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> here is my situation. I use a headset, and I hear what you may call splatter in the earpiece during transmit. I can
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> from the Tx/AC4. Since I use a outlet strip to control the 4-line power on/off, I'm bound and determined to fix this,
> a couple of snap-on's on the R4 line cord didn't make a noticeable difference. My next step is to try an ISOBAR power
> strip, that has built-in RF filtering.

> Is this affect seen by anyone else here?
>
> WB4SPT
>

18257. Re: [DrakeRadio] R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 18:54:48 UTC
From: Evan Rolek
Topic: 18255 Message: 18257

This is not uncommon and can be due to a variety of causes. Ground loops, device rectification within a receiver, poor shielding, poor grounding, etc. etc. can all contribute to this as a possible cause. Off hand, the situation seems like RF pickup might be coming in via the AC line in the house and/or the line cord of the receiver. It is a bit strange that a different outlet on the same circuit produces a different result/cure. It is almost suggestive of a poor ground, neutral, or other connection in the outlets, etc. Sometimes just reversing the line plug to the receiver can produce an improvement.

As to RF filtering, there are varying degrees of filtering and often the more you pay, the better the filtering but that is a gross generalization. If it were me, I would do further investigation to determine if the problem is caused by radiation and/or conduction. Depending on the cause, it will lead you to the respective cure(s).

Please keep us informed so we all can learn.

73,

Evan, K9SQG

-----Original Message-----
From: teamkarst <teamkarst@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 1:01 pm
Subject: [DrakeRadio] R4 RF immunity

My R4A, 11 tube box has a bit of sensitivity to RF fields. Something I might expect more with solid state gear, but here is my situation. I use a headset, and I hear what you may call splatter in the earpiece during transmit. I can also hear a tone during tuneup of the transmitter. This audio is not affected by the Rx volume control. It does also present itself thru the speaker, with the headset disconnected.

And the last big item; it only happens with the SB220 on! Operating position is in the basement, with the flat top dipole about 45' above ground, but only maybe 30' offset from the station, so is maybe a total of 60-70 feet away. RG8X feed, no line chokes, using a MN2000 tuner. No doubt, there is some local coax radiation.
That all said, the interference goes away, if I move the Rx line cord to a different AC outlet (same branch circuit) from the Tx/AC4. Since I use a outlet strip to control the 4-line power on/off, I'm bound and determined to fix this, a couple of snap-on's on the R4 line cord didn't make a noticeable difference. My next step is to try an ISOBAR power strip, that has built-in RF filtering.
Is this affect seen by anyone else here?

WB4SPT

18258. RE: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 19:02:38 UTC
From: Doug Coffman
Topic: 18218 Message: 18258

Bob,

I was waiting for one of these quick retorts, I'm just surprised that it took this long. If you will take the time to read the thread, I stated that I DO NOT need the frequency accuracy of a RICEBOX! This is a curiosity, experimentation, implementation of something new that MAY or MAY NOT be helpful in my operating station.

It's much more helpful on a forum to give reasons for or against a project, for instance; the DDS does not have enough output and of correct impedance to work. You would have to build a number of subsystems to make it function and either the cost or expertise required may be more than you have. Or maybe something like give it a try and you may have to build X,Y and Z to make it work properly.

So far as I know, Ham radio has always been about experimentation and learning. Your comment leads me to believe that your belief is that one should keep using the products that they have been given and not try to learn, experiment or improve the product. If that's the case then I'm sorry because I do not make a very good follower. This post was not about need, because let's face it that's a relative term. I do not need 7 Drake radios, I do not need 4 amplifiers or any amplifiers at all etc. etc. The only things that are needed in life are food, water and shelter; the rest of the items we have are luxuries.

As a follow-up, If you are going to post something, why do you not take the time to make it useful to the recipient. Albeit I could have misunderstood the tone of your message, and if so then this post should be disregarded. If in fact I did get the tone of your reply correctly then it reminds me much of the curmudgeon on some of the Eham forums, of which I can do without.

Regards,

Doug Coffman – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of K5MYJ
Sent: Thursday, January 23, 2014 12:09 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

☐

If you really need a DIGITAL VFO use a RICEBOX!

The digital dial will give you the frequency accuracy if you really need it.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----

From: Doug <mailto:dcoffman@...>

To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>

Cc: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>

Sent: Wednesday, January 22, 2014 8:34 PM

Subject: Re: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS

Steve,

I've had a brief look at that unit. It does not have the capability of changing frequency does it? As far as I can tell its a frequency counter only?

Thanks,

Doug-N9XTF

Sent from my iPhone

On Jan 22, 2014, at 21:37, Steve Toth <stoth47@... <mailto:stoth47@...> > wrote:

Think about it a different way: Run the twins in transceiver mode and connect a digital dial to the injection jack via a "Y" connector - I run transceiver mode with the R4C controlling the frequency of both units and have a Digital Dial on the R4C injection line here. I can easily check the calibration the Digital Dial against my Icom R70 and it's as accurate as the Icom that reads three digits to the right of the decimal. Check out the ESP DD-103. That's pretty plug and play.
-- Steve

"To every man there comes in his lifetime that special moment when he is physically tapped on the shoulder and offered the chance to do a very special thing, unique to him and fitted to his talent; what a tragedy if that moment finds him unprepared or unqualified for the work which would be his finest hour." - Winston Churchill

---
On Wed, 1/22/14, dcoffman@... <mailto:dcoffman@...> <dcoffman@pdswireless.com <mailto:dcoffman@...> > wrote:

Subject: [DrakeRadio] RE: Drake C-Line and N3ZI Super DDS
To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
Date: Wednesday, January 22, 2014, 12:53 PM

Garey,
I really expected some severe blow back from hard
core boat anchor guys on this one. No, the frequency
accuracy is not of great concern however; it would be easier
to get on the correct frequency when operating SSB, when in
a group, instead of attempting to tune to one person's
voice. It would also be nice to see if the VFO were
drifting and compensate for it.
As always, I greatly appreciate the
information. I knew it wasn't going to be a simple
plug and play thing but was not sure how much trouble I was

going to get into.
73,
Doug - N9XTF

_____

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PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18259. RE: SPR-4 Frequency Decals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 20:03:08 UTC
From: <breedenwb@...>
Topic: 18248 Message: 18259

Bob,

I printed some SPR-4 labels once using Avery 5660 clear laser labels on a standard laser printer. Created the labels in Microsoft Word. Took some editing to get them the way I wanted them, but they turned out pretty good. Will upload a picture of the crystal selector dial that I took while I was working on it to the Photo section.

Bill - NA5DX

---In DrakeRadio@yahoogroups.com, <bob145@...> wrote:

I'm in need of the frequency decals/stickers for an SPR-4. I'll buy a whole roll or parts thereof. Any help will be very much appreciated.

Thanks & 73,

Bob AG5X

18260. Re: [DrakeRadio] R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 20:22:31 UTC
From: Richard Knoppow
Topic: 18255 Message: 18260

----- Original Message -----
From: <teamkarst@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, January 23, 2014 10:01 AM
Subject: [DrakeRadio] R4 RF immunity

> My R4A, 11 tube box has a bit of sensitivity to RF fields.
> Something I might expect more with solid state gear, but
> here is my situation. I use a headset, and I hear what
> you may call splatter in the earpiece during transmit. I
> can also hear a tone during tuneup of the transmitter.
> This audio is not affected by the Rx volume control. It
> does also present itself thru the speaker, with the
> headset disconnected.
> And the last big item; it only happens with the SB220 on!
> Operating position is in the basement, with the flat top
> dipole about 45' above ground, but only maybe 30' offset
> from the station, so is maybe a total of 60-70 feet away.
> RG8X feed, no line chokes, using a MN2000 tuner. No
> doubt, there is some local coax radiation.
> That all said, the interference goes away, if I move the
> Rx line cord to a different AC outlet (same branch
> circuit) from the Tx/AC4. Since I use a outlet strip to
> control the 4-line power on/off, I'm bound and determined
> to fix this, a couple of snap-on's on the R4 line cord
> didn't make a noticeable difference. My next step is to
> try an ISOBAR power strip, that has built-in RF filtering.
> Is this affect seen by anyone else here?
>
>
> WB4SPT
>
Are you grounding the chassis of the receiver and
transmitter separately from the coax shield? If each piece
of equipment should be brought to a common ground point
through heavy wire or better braid. If you have a ground
disconnect it temporarily and see of the problem changes.
Note that its important that each item be grounded
separately to a common point otherwise you will get a ground
loop.

--
Richard Knoppow
Los Angeles
WB6KBL

dickburk@...

18261. Re: [DrakeRadio] R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 20:45:18 UTC
From: <teamkarst@...>
Topic: 18255 Message: 18261

I am using a solid copper, 3' long grounding buss for the station (metalwerks). Each Drake "box" has its own #12 to this bus. The SB220 has its own separately run 240V branch wire and has its own grounding wire to the same buss. I'm now armed with a corcom ac line filter, some more ferrite and will post future results to this forum. Thanks to all helpers.

18262. Re: [DrakeRadio] R4 RF immunity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 20:58:45 UTC
From: Evan Rolek
Topic: 18255 Message: 18262

In order to obtain some additional observational data as to whether the problem is due to radiated versus conducted RF energy, you might want to do some testing with a dummy load to get some additional insights.

-----Original Message-----
From: teamkarst <teamkarst@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 3:45 pm
Subject: Re: [DrakeRadio] R4 RF immunity

I am using a solid copper, 3' long grounding buss for the station (metalwerks). Each Drake "box" has its own #12 to this bus. The SB220 has its own separately run 240V branch wire and has its own grounding wire to the same buss. I'm now armed with a corcom ac line filter, some more ferrite and will post future results to this forum. Thanks to all helpers.

18263. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 21:08:50 UTC
From: Joe Pyles
Topic: 18243 Message: 18263

I have 7 MMK7 Mobile mounting kits for the TR7.
and in every one the power cord only has 2
conductors, a red and a brown. These are covered with a gray jacket.
There are 3 wires coming out of the noise filter
that is in the MMK7, a white,white with black
stripe, and red. If you have a 3 wire power cord
for the TR7 it was probably made by someone other than Drake.

73, Joe KC9LAD

At 12:25 PM 1/23/2014, you wrote:
>
>
>Much in the same way the Atlas set up their powering I suppose. Thanks Garey!
>
>
>-----Original Message-----
>From: Garey Barrell <k4oah@...>
>To: DrakeRadio <DrakeRadio@yahoogroups.com>
>Sent: Thu, Jan 23, 2014 11:07 am
>Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
>
>
>Joe -
>
>Correct. The power connector on the TR-7 has two
>DC inputs. Pin 15 is the radio, with the exception of the PA stages.
>Pin 13 is the PA stages only. Both must be present for the radio to operate.
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>The reason is that the heavy current causes the
>voltage to drop when the radio is keyed, even with very large wire. By
>powering the radio from a separate lead, they
>eliminated dimming of the panel lights and other regulation problems. Now
>the voltage at the radio is only affected by the
>regulation capability of the power source rather than the drop across
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>73, Garey - K4OAH
>Glen Allen, VA
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>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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><<http://www.k4oah.com>>www.k4oah.com>;
>
><mailto:N9JCQ@aol.com>N9JCQ@... wrote:

> >
> >
> > You know Garey, that was what I was thinking.
> As a lark, I hooked up the cable to a 35 amp Astron I have... Hooking
> > up just the red and black leads. I measure
> the voltage out of the plug and got 13.5 volts out pins 13/14 and there
> > was no voltage on 15/16. I can always hook up
> the white lead and measure .. just not hooking up the TR7.
> >
> >
> > -----Original Message-----
> > From: Garey Barrell <<mailto:k4oah@...>k4oah@...>
> > To: DrakeRadio
> <<mailto:DrakeRadio@yahoogroups.com>DrakeRadio@yahoogroups.com>
> > Sent: Thu, Jan 23, 2014 10:22 am
> > Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
> >
> > Joe -
> >
> > I've never thought of running a TR-7 mobile,
> but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
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> > <<http://www.k4oah.com>>www.k4oah.com>; <http://www.k4oah.com%3E>;;
> >
> > <mailto:N9JCQ@...>N9JCQ@... <mailto:N9JCQ@...>; wrote:
> > >
> > >
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> > > Joe N9JCQ
> > >
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> >
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> >

18264. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 21:14:44 UTC
From: Evan Rolek
Topic: 18243 Message: 18264

I have to agree with Joe. I have had three MMKs (the mobile mounting kit for the TR-7) that included the cable. None of them had anything other than two conductors. Not sure if Drake had another 3 wire variant or not.

73,

Evan, K9SQG

-----Original Message-----
From: Joe Pyles <epyles@indy.rr.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 4:09 pm
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

I have 7 MMK7 Mobile mounting kits for the TR7. and in everyone the power cord only has 2 conductors, a red and a brown. These arecovered with a gray jacket.
There are 3 wires coming out of the noise filter that is in the MMK7, awhite,white with black stripe, and red. If you have a 3 wire power cordfor the TR7 it was probably made by someone other than Drake.

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At 12:25 PM 1/23/2014, you wrote:

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To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 11:07 am
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

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Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> From: Garey Barrell<k4oah@mindspring.com>
> To: DrakeRadio<DrakeRadio@yahoogroups.com>
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <"www.k4oah.com>;</" eudora="autourl"http://www.k4oah.com%3E/" eudora="autourl">;;
>
> N9JCQ@...<mailto:N9JCQ@...>; wrote:
> >
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> > I found a brand new TR7 mobile power cord in a drawer. I haveno clue when I got it but I had a basic question
> > regarding it. It has three leads, red, black and white. I knowred is positive and black is negative but what is
> > white used for. I looked up the the cord in the drake manualbut I can't see where the white lead comes into the
> > schematic.
> > Joe N9JCQ
> >
> >
>
>
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>

18265. RE: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 21:33:29 UTC
From: Keith R. Erickson
Topic: 18243 Message: 18265

I agree with Joe also.

Keith Erickson K0GNW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Joe Pyles
Sent: Thursday, January 23, 2014 3:09 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

I have 7 MMK7 Mobile mounting kits for the TR7. and in every one the power cord only has 2 conductors, a red and a brown. These are covered with a gray jacket.
There are 3 wires coming out of the noise filter that is in the MMK7, a white,white with black stripe, and red. If you have a 3 wire power cord for the TR7 it was probably made by someone other than Drake.

73, Joe KC9LAD

At 12:25 PM 1/23/2014, you wrote:

Much in the same way the Atlas set up their powering I suppose. Thanks Garey!

-----Original Message-----
From: Garey Barrell <k4oah@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 11:07 am
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Joe -

Correct. The power connector on the TR-7 has two DC inputs. Pin 15 is the radio, with the exception of the PA stages.
Pin 13 is the PA stages only. Both must be present for the radio to operate.

The reason is that the heavy current causes the voltage to drop when the radio is keyed, even with very large wire. By
powering the radio from a separate lead, they eliminated dimming of the panel lights and other regulation problems. Now
the voltage at the radio is only affected by the regulation capability of the power source rather than the drop across
the PA power lead.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com%3e> >;

N9JCQ@... wrote:
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> You know Garey, that was what I was thinking. As a lark, I hooked up the
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> up just the red and black leads. I measure the voltage out of the plug and
got 13.5 volts out pins 13/14 and there
> was no voltage on 15/16. I can always hook up the white lead and measure
.. just not hooking up the TR7.
>
>
> -----Original Message-----
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio < DrakeRadio@yahoogroups.com
<mailto:DrakeRadio@yahoogroups.com> >
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
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> Joe -
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> Glen Allen, VA
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> <www.k4oah.com <http://www.k4oah.com%3e> >; < http://www.k4oah.com%3E
<http://www.k4oah.com%3e/> <http://www.k4oah.com%3e/> >;;
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> > schematic.
> > Joe N9JCQ
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>

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18266. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-23 21:39:03 UTC
From: N9JCQ@...
Topic: 18243 Message: 18266

Gents I'll post a picture of it but it sure looks professional. My cable is also covered an a rather robust looking gray jacket.

-----Original Message-----
From: Keith R. Erickson <kognw@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 3:33 pm
Subject: RE: [DrakeRadio] Question RE: TR7 Mobile Power cord

I agree with Joe also.

Keith Erickson K0GNW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Joe Pyles
Sent: Thursday, January 23, 2014 3:09 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

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Sent: Thu, Jan 23, 2014 11:07 am
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the voltage at the radio is only affected by the regulation capability of the power source

rather than the drop across
the PA power lead.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

N9JCQ@... wrote:
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> To: DrakeRadio < DrakeRadio@yahoogroups.com>
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
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> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> N9JCQ@... < mailto:N9JCQ@... >; wrote:
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>
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18267. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 00:31:02 UTC
From: n9jcq
Topic: 18243 Message: 18267

What do you guys think?

Sent from my Verizon Wireless 4G LTE Smartphone

-------- Original message --------
From: N9JCQ@...
Date:01/23/2014 3:39 PM (GMT-06:00)
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Gents I'll post a picture of it but it sure looks professional. My cable is also covered an a rather robust looking gray jacket.

-----Original Message-----
From: Keith R. Erickson <kognw@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 3:33 pm
Subject: RE: [DrakeRadio] Question RE: TR7 Mobile Power cord

I agree with Joe also.

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From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Joe Pyles
Sent: Thursday, January 23, 2014 3:09 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> From: Garey Barrell <k4oah@...>
> To: DrakeRadio < DrakeRadio@yahoogroups.com>
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>
>
>
>

[Non-text portions of this message have been removed]

18268. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 00:37:55 UTC
From: N9JCQ@...
Topic: 18243 Message: 18268

The site scrubbed my pic.

-----Original Message-----
From: n9jcq <N9JCQ@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 6:31 pm
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

What do you guys think?

Sent from my Verizon Wireless 4G LTE Smartphone

-------- Original message --------
From: N9JCQ@...
Date:01/23/2014 3:39 PM (GMT-06:00)
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Gents I'll post a picture of it but it sure looks professional. My cable is also covered an a rather robust looking gray jacket.

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From: Keith R. Erickson <kognw@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 3:33 pm
Subject: RE: [DrakeRadio] Question RE: TR7 Mobile Power cord

I agree with Joe also.

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From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Joe Pyles
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To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

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73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> -----Original Message-----
> From: Garey Barrell <k4oah@mindspring.com>
> To: DrakeRadio < DrakeRadio@yahoogroups.com>
> Sent: Thu, Jan 23, 2014 10:22 am
> Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord
>
> Joe -
>
> I've never thought of running a TR-7 mobile, but perhaps the white wire is to power the 'rest' of the radio via Pin 15,
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> > Joe N9JCQ
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>
>
>
>

[Non-text portions of this message have been removed]

18269. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 01:08:34 UTC
From: N9JCQ@...
Topic: 18243 Message: 18269

I posted a picture in the photos section under TR7 Power Cord. Let me know what you guys think.
Joe N9JCQ

-----Original Message-----
From: n9jcq <N9JCQ@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 23, 2014 6:31 pm
Subject: Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

What do you guys think?

Sent from my Verizon Wireless 4G LTE Smartphone

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From: N9JCQ@...
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From: Garey Barrell <k4oah@...>
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> Glen Allen, VA
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> > Joe N9JCQ
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> >
>
>
>
>

[Non-text portions of this message have been removed]

18270. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 01:40:42 UTC
From: Garey Barrell
Topic: 18270 Message: 18270

Marco -

Welcome to the DrakeRadio list.!

Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
<harbachelectronics.com>.

I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
and won't accept the stand-offs of the Heathkit shop version.

A plus or minus for the Harbach version is that the PC boards are already assembled, and how much you like stuffing and
soldering boards! Some of us find that to be the best part.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

18271. Re: [DrakeRadio] - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 02:35:17 UTC
From: Garey Barrell
Topic: 18230 Message: 18271

Ray -

Be SURE these voltages are at zero before touching anything in the transmitter. Again, there is +650 VDC UNDER the
chassis, along with the +250 VDC.

If these are voltages _at the tube pins_ the tubes are drawing Plate current. Sometimes the voltage gets 'lost'
between the socket tab and the pin, so best to touch your probe to the tube pin itself where it protrudes through the
socket.

However ...

If R36 measures 3.9 ohms, (10.9 / (17.9+3.9 = 21.8 ohms) = 500 mA through V5!! Not likely, unless it's melted down into
the socket. And;

then 5.7 / (3.9 + 18.1 = 22) = 260 mA, also enough to melt V6.

So.... We have a problem. The above assumes that the ''bottom" end of R36 is at 0.0 VDC, which it should be IF the
relay contact is closing properly. If not 0, what IS the voltage? Measure resistance from the bottom of R36 to chassis
(Power OFF) while depressing the armature of the relay with a pencil.

What is the color code on resistor R36? It should be Red/Violet/Gold. If it is, it has gone up in value and should be
changed. Not immediately, it's good enough for troubleshooting as it is. IF the color code is Orange/Blue/Gold, it's
probably been replaced with the wrong resistor. Again, not an immediate problem.

You can measure the current through each tube by measuring the voltage ACROSS R32 and dividing it by 17.9; and R33
divided by 18.1. Both these need to be replaced with 15 ohm, 1 W ceramic composition resistors, but again are 'close
enough' at this point.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ray Fair wrote:
> Garey
>

> R36=3.9 R32=17.9 R33=18.1. Relay ingages
> V5. V6
> 1=257. 1=260
> 2=- 62. 2= - 62
> 3=10.9. 3=5.7
> 4=0. 4=6.13
> 5=6. 5=12.6
> 6=-62. 6=-62
> 7=256. 7=257
> 8=0. 8=0
> 73
> Thanks Ray
>
>
>
> Sent from my ASUS Pad
>
> Garey Barrell <k4oah@...> wrote:
>
>> Ray -
>>
>> OK. We'll get them going. Check those voltages _tomorrow_ when you're awake and report back. NO current is pretty
>> easy, since it's just a matter of having the right DC voltages on the tube elements, and grounding the bottom of R36.
>>
>> The transmitter hasn't been set up for VHF has it? Two extra RCA jacks on the rear panel right next to the power
>> connector.?
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> crf2@... wrote:
>>> Garey
>>>
>>> This a set of twins had for 20 years plus yrs the AC4 Power supply was apart when I bought them You have helped me rebuilding the RB4 and Lots help on the AC4
>>> Again Thanks for help
>>>
>>> 73 Ray
>>> ---- Garey Barrell <k4oah@...> wrote:
>>>> Ray -
>>>>
>>>> OK.... Measure the voltages below _at the PA tube pins_.
>>>>

>>>> No Screen voltage will give zero current.
>>>>
>>>> Cathodes not grounded will give zero current and positive HV on Cathode pins. Path to ground is through two 15 ohm
>>>> resistors, RF Choke, R36, relay contact.
>>>>
>>>> Is this a 'new to you' transmitter, or one you know to have worked previously?
>>>>
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>>
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>>
>>>> crf2@... wrote:
>>>>> Garey
>>>>>
>>>>> No current
>>>>>
>>>>> 73
>>>>> Ray
>>>>> ---- Garey Barrell <k4oah@...> wrote:
>>>>>> Ray -
>>>>>>
>>>>>> You're not clear if you are measuring NO, too little, or too much PLATE current.
>>>>>>
>>>>>> Check voltages on all PA tube pins. IF the Plate and Screen voltages are present and the Cathode is grounded, the tubes
>>>>>> will pull maximum current, to destruction! A negative voltage on the Grids (~ -62 VDC) limits that current to 0.07A.
>>>>>> This is regardless of any other voltage or stage in the radio. The Cathode pins in SSB should read about 150 VDC key or
>>>>>> PTT up, and about 0.5 VDC key down or TUNE position. The 15 ohm Cathode resistors of the PA should drop about 0.53 VDC
>>>>>> each, IF they are 15 ohms. Measure! You can measure the voltage drop across R36 to measure actual current. Verify
>>>>>> that R36 is 2.7 Ohms.
>>>>>>
>>>>>> If voltages are good and still no current, the PA tube(s) are bad. I HAVE seen tubes that heat and look good that will
>>>>>> pass NO current. Most likely you have a resistor or two that has gone up in value with age, probably R32 and/or R33.
>>>>>>
>>>>>> Be careful measuring in the PA compartment UNDER the chassis, as both Plate and Screen voltages are present. HIGH VOLTAGE!!
>>>>>>
>>>>>> 73, Garey - K4OAH
>>>>>> Glen Allen, VA
>>>>>>

>>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>>> and TR-4/C Service Supplement CDs
>>>>>> <www.k4oah.com>
>>>>>>
>>>>>> rf200655 wrote:
>>>>>>> Can not get .07 on meter . Checked V5& V6 PIN 2 have -60 V Checked the meter resistors the diode the switch ,meter .
>>>>>>> Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust - Bias .
>>>>>>>
>>>>>>>

18272. Re: [DrakeRadio] Question RE: TR7 Mobile Power cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 03:44:55 UTC
From: Jim Shorney
Topic: 18243 Message: 18272

The consensus seems to be that this is not a "standard" Drake cable. Seperate wires for the high and low current rails are a very good idea that seems to be a well kept secret. GW4ALG mentions it on his mods page, but few seem to talk about it otherwise. I have seen some pretty wimpy homebrew and aftermarket power cables for the TR-7. This radio needs a beefy power cable, and can benefit from a 4-wire cable. Having done this with both a generic cable and a PS-7 retrofit I wouldn't have it any other way.

73

-Jim
NU0C

On Thu, 23 Jan 2014 12:08:15 -0500, Garey Barrell wrote:

>Joe -
>
>Correct. The power connector on the TR-7 has two DC inputs. Pin 15 is the radio, with the exception of the PA stages.
>Pin 13 is the PA stages only. Both must be present for the radio to operate.
>
>The reason is that the heavy current causes the voltage to drop when the radio is keyed, even with very large wire. By
>powering the radio from a separate lead, they eliminated dimming of the panel lights and other regulation problems. Now
>the voltage at the radio is only affected by the regulation capability of the power source rather than the drop across
>the PA power lead.
>
>73, Garey - K4OAH

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18273. C Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 06:07:43 UTC
From: Woody
Topic: 576 Message: 18273

Hello from COLD N. Alabama!! 16' now at midnight, going to 9' by morning
too cold for a Southern Boy.
I have a newly acquired C Line that works beautifully Most of the time.
Then it will stop transmitting. I've tried it with the R4C controlling the
Transmit and also the T4XC and it does the same thing. You can hear the
relay clicking but no output at all, turn it off for a while and try again
and it probably will work and continue to work. I had my Etek in line and
took it out thinking it could be in it or the Y adapter but it still does
the same thing. Took the relay out of the T4XC and lightly burnished the
contacts with no progress. Other than that it works great and solid as a
rock after about 15 min. warm up time.
Any idea's??
Thanks
Woody "KO4BG"
--

*Of **all **the things I've L**ost, I miss my Mind the Most~~~*

18274. TR-7A and computer conrol

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 04:23:19 UTC
From: <fclass308@...>
Topic: 18274 Message: 18274

This is to all the computer geek types in the group.....

Has anyone ever tied into the TR-7 to allow data such as frequency and mode to be used by a logging program? My soon-to-be-returned-to-me-from-John-Kriner TR-7A is slated to be my primary station rig (supplanting my FT-950) and I like to use computer logging.

just curious...

73 de NI5L
Warren

18275. Re: [DrakeRadio] C Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 14:26:08 UTC
From: Evan Rolek
Topic: 576 Message: 18275

Woody,

The official name for this weather is Global Warming. We've been getting below zero at night for a couple of weeks now with wind chills at -15 or so. Spring can't come soon enough. Nice WX for antenna work.

Does this happen on all bands?
Has each swich and potentiometer been moved through all the positions (with or without DeOxit) to remove possible oxidation?
Is the 12 pin Jones connector from the power supply snug against clean contacts on the T4XC?
Do you have a way to substitute/test the tubes? (not the finals, but the other tubes)
If it were me, I'd make a visual inspection of all solder connections on the bottom side.

My mind isn't clear right now. My mom, who is 101, is not doing well. Sleeping all the time and hasn't eaten in 2 weeks.

73,

Evan

-----Original Message-----
From: Woody <ko4bg1@...>
To: Drake Yahoo Group <drakeradio@yahoogroups.com>
Sent: Fri, Jan 24, 2014 2:40 am
Subject: [DrakeRadio] C Line

Hello from COLD N. Alabama!! 16' now at midnight, going to 9' by morning too cold for a Southern Boy.
I have a newly acquired C Line that works beautifully Most of the time. Then it will stop transmitting. I've tried it with the R4C controlling the Transmit and also the T4XC and it does the same thing. You can hear the relay clicking but no output at all, turn it off for a while and try again and it probably will work and continue to work. I had my Etek in line and took it out thinking it could be in it or the Y adapter but it still does the same thing. Took the relay out of the T4XC and lightly burnished the contacts with no progress. Other than that it works great and solid as a rock after about 15 min. warm up time.
Any idea's??

Thanks

Woody "KO4BG"
--

Of all the things I've Lost, I miss my Mind the Most~~~

18276. RE: C Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 15:20:50 UTC
From: <w5rkl@...>
Topic: 576 Message: 18276

Woody,

The rear power connector pins and plug, over time, can become corroded causing all kinds of problems.

I use DeoXit applied to the power pins then scrub the pins with an old tooth brush. The plug itself, can be cleaned. Pull the main power supply's AC main plug from the wall outlet. Apply some contact cleaner to each socket on the power plug and insert and remove the plug from the rear of the Transmitter a few times. Use canned air or compressed air to remove any cleaner residue from the power connector pins and power plug socket then plug the power plug onto the rear pins ensuring it is flush with the rear panel. Power up the xmtr and test for power output in a 50 ohm dummy load.

Have you tried "tapped" on the cabinet, when you loose RF output, to see if the RF comes back? I had the same problem, loss of RF output with my T4XC xmtr, and it turned out to be T14, the balance modulator transformer.

73
Mike W5RKL

18277. Re: [DrakeRadio] C Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 15:33:50 UTC
From: Steve Wedge
Topic: 576 Message: 18277

Woody, does this also happen if the transmitter is controlling the frequency?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Woody
Sent: Friday, January 24, 2014 1:07 AM
To: Drake Yahoo Group
Subject: [DrakeRadio] C Line

Hello from COLD N. Alabama!! 16' now at midnight, going to 9' by morning too cold for a Southern Boy.
I have a newly acquired C Line that works beautifully Most of the time. Then it will stop transmitting. I've tried it with the R4C controlling the Transmit and also the T4XC and it does the same thing. You can hear the relay clicking but no output at all, turn it off for a while and try again and it probably will work and continue to work. I had my Etek in line and took it out thinking it could be in it or the Y adapter but it still does the same thing. Took the relay out of the T4XC and lightly burnished the contacts with no progress. Other than that it works great and solid as a rock after about 15 min. warm up time.
Any idea's??

Thanks
Woody "KO4BG"
--

Of all the things I've Lost, I miss my Mind the Most~~~

18278. Re: [DrakeRadio] C Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 15:51:35 UTC
From: Garey Barrell
Topic: 576 Message: 18278

Do you still have idle current after it 'quits'??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Woody wrote:
>
>
> Hello from COLD N. Alabama!! 16' now at midnight, going to 9' by morning too cold for a Southern Boy.
> I have a newly acquired C Line that works beautifully Most of the time. Then it will stop transmitting. I've tried it
> with the R4C controlling the Transmit and also the T4XC and it does the same thing. You can hear the relay clicking
> but no output at all, turn it off for a while and try again and it probably will work and continue to work. I had my
> Etek in line and took it out thinking it could be in it or the Y adapter but it still does the same thing. Took the
> relay out of the T4XC and lightly burnished the contacts with no progress. Other than that it works great and solid as
> a rock after about 15 min. warm up time.
> Any idea's??
>

18279. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 16:10:47 UTC
From: Chgypsy@...
Topic: 18279 Message: 18279

Hi to the group,

TR7 stuff
First symptoms and past tense...screwed up frequencies and readouts 2 megs off...low EG 14meg is 12 Meg. 7Meg is 5 meg
Could use the up down buttons to get to 14 M stuff that worked as well as what appear to be 7M. There were also signals in the 21 M region as I recall.

Last step, pull the DR7 board and substitute the extender set jumper board, all straightened out. Obvoious no digits, and no up/down.

Substituted a second DR7 board (no digital reads) and all is straightened out too. So its apparent that the problems are on the DR7.

Considering that the up down buttons have always worked it would appear to me that changing the two CMOS chips (14050's) U9007 & 9008 should fix the original headache. That's all that's on the jumper board.
Am after a thought conclusion or not on the above consideration statement.
73's , Carl WD8NHK

PS Can't leave well enough alone
In the meantime, the original DR7 board that had digital read but screwed up frequencies was being used to ferret out the problem with the second DR7 board with good frequencies but no digitals....SIGH...
Scrounged an O scope, looking at patterns for what its supposed to do.
I blew out U9019. Clumsy oaf.....new chips on the way, perhaps fix both DR7 boards., more work.

18280. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 16:44:25 UTC
From: Garey Barrell
Topic: 18279 Message: 18280

Carl -

You may have a PROM problem.

Check the IN and OUT logic of DR-7 with the attached chart.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
>
>
> Hi to the group,
> TR7 stuff
> First symptoms and past tense...screwed up frequencies and readouts 2 megs off...low EG 14meg is 12 Meg. 7Meg is 5 meg
> Could use the up down buttons to get to 14 M stuff that worked as well as what appear to be 7M. There were also
> signals in the 21 M region as I recall.
> Last step, pull the DR7 board and substitute the extender set jumper board, all straightened out. Obvoious no
> digits, and no up/down.
> Substituted a second DR7 board (no digital reads) and all is straightened out too. So its apparent that the problems
> are on the DR7.
> Considering that the up down buttons have always worked it would appear to me that changing the two CMOS chips
> (14050's) U9007 & 9008 should fix the original headache. That's all that's on the jumper board.
> Am after a thought conclusion or not on the above consideration statement.
> 73's , Carl WD8NHK
> PS Can't leave well enough alone
> In the meantime, the original DR7 board that had digital read but screwed up frequencies was being used to ferret out
> the problem with the second DR7 board with good frequencies but no digitals....SIGH...
> Scrounged an O scope, looking at patterns for what its supposed to do.
> I blew out U9019. Clumsy oaf.....new chips on the way, perhaps fix both DR7 boards., more work.
>

[Non-text portions of this message have been removed]

18281. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:08:19 UTC
From: Jim Shorney
Topic: 18279 Message: 18281

It's worth noting that the band programming logic on the DR-7 will function perfectly normally with PROM U9003 removed completely. What you loose is the UP/DOWN "stops" at the range edges printed on the bandswitch and the H.B. flag to the transmit innhibit circuit on the D.C. board.

73

-Jim
NU0C

On Fri, 24 Jan 2014 11:44:25 -0500, Garey Barrell wrote:

>Carl -
>
>You may have a PROM problem.
>
>Check the IN and OUT logic of DR-7 with the attached chart.
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Chgypsy@... wrote:
>>
>>
>> Hi to the group,
>> TR7 stuff
>> First symptoms and past tense...screwed up frequencies and readouts 2 megs off...low EG 14meg is 12 Meg. 7Meg is 5 meg
>> Could use the up down buttons to get to 14 M stuff that worked as well as what appear to be 7M. There were also
>> signals in the 21 M region as I recall.
>> Last step, pull the DR7 board and substitute the extender set jumper board, all straightened out. Obvoious no
>> digits, and no up/down.
>> Substituted a second DR7 board (no digital reads) and all is straightened out too. So its apparent that the problems
>> are on the DR7.
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>> (14050's) U9007 & 9008 should fix the original headache. That's all that's on the jumper board.
>> Am after a thought conclusion or not on the above consideration statement.

>> 73's , Carl WD8NHK
>> PS Can't leave well enough alone
>> In the meantime, the original DR7 board that had digital read but screwed up frequencies was being used to ferret out
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>> I blew out U9019. Clumsy oaf.....new chips on the way, perhaps fix both DR7 boards., more work.
>>
>
>
>
>[Non-text portions of this message have been removed]
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18282. Re: [DrakeRadio] TR7 items ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:11:57 UTC
From: Chgypsy@...
Topic: 18282 Message: 18282

Hi to the group,

Working on a couple of TR7's
One has been a work in progress for several years and I have already had one message out today on it. Thank you for the response Garey.....Yep! That's my "Crud"

The other one may require a group consensus.
Unit # 1513 an early one.
Has had the cover off once prior to me.

There is no gas fuse across the RFC choke on the back panel, antenna input.
No braided ground strap on the PTO. Drake did that standard later, and on any repair unit.
What else am I missing that could or should probably be done, to bring it semi up to par without replacing any boards.

Carl WD8NHK

18283. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:19:18 UTC
From: Dieter Horst
Topic: 18279 Message: 18283

How come Jim knows that so well.... ;-)

73s Dieter DL5RDO

Am 24.01.2014 23:08, schrieb Jim Shorney:
>
>
> It's worth noting that the band programming logic on the DR-7 will
> function
> perfectly normally with PROM U9003 removed completely. What you loose
> is the
> UP/DOWN "stops" at the range edges printed on the bandswitch and the
> H.B. flag
> to the transmit innhibit circuit on the D.C. board.
>
> 73
>
> -Jim
> NU0C
>
> On Fri, 24 Jan 2014 11:44:25 -0500, Garey Barrell wrote:
>
> >Carl -
> >
> >You may have a PROM problem.
> >
> >Check the IN and OUT logic of DR-7 with the attached chart.
> >
> >73, Garey - K4OAH
> >Glen Allen, VA
> >
> >Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >and TR-4/C Service Supplement CDs
> ><www.k4oah.com>
> >
> >Chgypsy@... wrote:
> >>
> >>
> >> Hi to the group,
> >> TR7 stuff
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> >> Could use the up down buttons to get to 14 M stuff that worked as
> well as what appear to be 7M. There were also
> >> signals in the 21 M region as I recall.

> >> Last step, pull the DR7 board and substitute the extender set
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> >> digits, and no up/down.
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> appear to me that changing the two CMOS chips
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> >> 73's , Carl WD8NHK
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> >> the problem with the second DR7 board with good frequencies but no
> digitals....SIGH...
> >> Scrounged an O scope, looking at patterns for what its supposed to do.
> >> I blew out U9019. Clumsy oaf.........new chips on the way, perhaps
> fix both DR7 boards., more work.
> >>
> >
> >
> >
> >[Non-text portions of this message have been removed]
> >
> >
>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A,
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> "Give a man a URL, and he will learn for an hour; teach him to Google,
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> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
>
>

18284. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:24:33 UTC
From: Garey Barrell
Topic: 18279 Message: 18284

Hmpf....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
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> 73
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> -Jim
> NU0C
>
>
> On Fri, 24 Jan 2014 11:44:25 -0500, Garey Barrell wrote:
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>> Carl -
>>
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>>> Could use the up down buttons to get to 14 M stuff that worked as well as what appear
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>>> Last step, pull the DR7 board and substitute the extender set jumper board, all

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>>> digits, and no up/down.
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>>>
>>
>>
>> [Non-text portions of this message have been removed]
>>
>>
>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
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> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
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> Yahoo Groups Links
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18285. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:25:42 UTC
From: Garey Barrell
Topic: 18279 Message: 18285

Because he's a troublemaker....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Dieter Horst wrote:
>
>
> How come Jim knows that so well.... ;-)
>
> 73s Dieter DL5RDO
>
>
> Am 24.01.2014 23:08, schrieb Jim Shorney:
>>
>>
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>> >Chgypsy@... wrote:

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>> >> Hi to the group,
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>> >> First symptoms and past tense...screwed up frequencies and readouts 2 megs off...low EG 14meg is 12 Meg. 7Meg is 5 meg
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>> >> PS Can't leave well enough alone
>> >> In the meantime, the original DR7 board that had digital read but screwed up frequencies was being used to ferret out
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>> >
>> >[Non-text portions of this message have been removed]
>> >
>> >
>>
>> --
>> Ham Radio NU0C
>> Lincoln, Nebraska, U.S.S.A.
>> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage,
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>> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
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>>
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18286. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 22:27:22 UTC
From: Garey Barrell
Topic: 18279 Message: 18286

Oh yeah??? What if a U9003 output shorts to ground?!?!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> It's worth noting that the band programming logic on the DR-7 will function
> perfectly normally with PROM U9003 removed completely. What you loose is the
> UP/DOWN "stops" at the range edges printed on the bandswitch and the H.B. flag
> to the transmit innhibit circuit on the D.C. board.
>
> 73
>
> -Jim
> NU0C
>
>
> On Fri, 24 Jan 2014 11:44:25 -0500, Garey Barrell wrote:
>
>> Carl -
>>
>> You may have a PROM problem.
>>
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>>> signals in the 21 M region as I recall.
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> Yahoo Groups Links
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18287. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 23:03:48 UTC
From: Dieter Horst
Topic: 18279 Message: 18287

He said "removed completely"... And in fact that is what
happens...nothing The main purpose of the PROM is the band edge
feature in conjunction with the up/down buttons.

So without (!) U9003 the TR7 works just fine unless you push the up/down
buttons.

Dieter DL5RDO

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> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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18288. Re: - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-24 23:43:45 UTC
From: rf200655
Topic: 18230 Message: 18288

Garey

The R36 is at ground with out relay in gaged also at ground when relay is in gaged . Tried 3 different meters . Shack is in separate building got heat on now Going back in hour to do rest you suggested .

Thanks 73
Ray

--- In DrakeRadio@yahoogroups.com, Garey Barrell <k4oah@...> wrote:
>
> Ray -
>
> Be SURE these voltages are at zero before touching anything in the transmitter. Again, there is +650 VDC UNDER the
> chassis, along with the +250 VDC.
>
> If these are voltages _at the tube pins_ the tubes are drawing Plate current. Sometimes the voltage gets 'lost'
> between the socket tab and the pin, so best to touch your probe to the tube pin itself where it protrudes through the
> socket.
>
> However ...
>
> If R36 measures 3.9 ohms, (10.9 / (17.9+3.9 = 21.8 ohms) = 500 mA through V5!! Not likely, unless it's melted down into
> the socket. And;
>
> then 5.7 / (3.9 + 18.1 = 22) = 260 mA, also enough to melt V6.
>
> So.... We have a problem. The above assumes that the ''bottom" end of R36 is at 0.0 VDC, which it should be IF the
> relay contact is closing properly. If not 0, what IS the voltage? Measure resistance from the bottom of R36 to chassis
> (Power OFF) while depressing the armature of the relay with a pencil.
>
> What is the color code on resistor R36? It should be Red/Violet/Gold. If it is, it has gone up in value and should be
> changed. Not immediately, it's good enough for troubleshooting as it is. IF the color code is Orange/Blue/Gold, it's
> probably been replaced with the wrong resistor. Again, not an immediate problem.
>
> You can measure the current through each tube by measuring the voltage ACROSS R32 and dividing it by 17.9; and R33
> divided by 18.1. Both these need to be replaced with 15 ohm, 1 W ceramic composition

resistors, but again are 'close
> enough' at this point.
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Ray Fair wrote:
> > Garey
> >
> > R36=3.9 R32=17.9 R33=18.1. Relay ingages
> > V5. V6
> > 1=257. 1=260
> > 2=- 62. 2= - 62
> > 3=10.9. 3=5.7
> > 4=0. 4=6.13
> > 5=6. 5=12.6
> > 6=-62. 6=-62
> > 7=256. 7=257
> > 8=0. 8=0
> > 73
> > Thanks Ray
> >
> >
> >
> > Sent from my ASUS Pad
> >
> > Garey Barrell <k4oah@...> wrote:
> >
> >> Ray -
> >>
> >> OK. We'll get them going. Check those voltages _tomorrow_ when you're awake and report
back. NO current is pretty
> >> easy, since it's just a matter of having the right DC voltages on the tube elements,
and grounding the bottom of R36.
> >>
> >> The transmitter hasn't been set up for VHF has it? Two extra RCA jacks on the rear
panel right next to the power
> >> connector.?
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >> <www.k4oah.com>
> >>

> >> crf2@... wrote:
> >>> Garey
> >>>
> >>> This a set of twins had for 20 years plus yrs the AC4 Power supply was apart when I bought them You have helped me rebuilding the RB4 and Lots help on the AC4
> >>> Again Thanks for help
> >>>
> >>> 73 Ray
> >>> ---- Garey Barrell <k4oah@...> wrote:
> >>>> Ray -
> >>>>
> >>>> OK.... Measure the voltages below _at the PA tube pins_.
> >>>>
> >>>> No Screen voltage will give zero current.
> >>>>
> >>>> Cathodes not grounded will give zero current and positive HV on Cathode pins. Path to ground is through two 15 ohm
> >>>> resistors, RF Choke, R36, relay contact.
> >>>>
> >>>> Is this a 'new to you' transmitter, or one you know to have worked previously?
> >>>>
> >>>> 73, Garey - K4OAH
> >>>> Glen Allen, VA
> >>>>
> >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >>>> <www.k4oah.com>
> >>>>
> >>>> crf2@... wrote:
> >>>>> Garey
> >>>>>
> >>>>> No current
> >>>>>
> >>>>> 73
> >>>>> Ray
> >>>>> ---- Garey Barrell <k4oah@...> wrote:
> >>>>>> Ray -
> >>>>>>
> >>>>>> You're not clear if you are measuring NO, too little, or too much PLATE current.
> >>>>>>
> >>>>>> Check voltages on all PA tube pins. IF the Plate and Screen voltages are present and the Cathode is grounded, the tubes
> >>>>>> will pull maximum current, to destruction! A negative voltage on the Grids (~ -62 VDC) limits that current to 0.07A.
> >>>>>> This is regardless of any other voltage or stage in the radio. The Cathode pins in SSB should read about 150 VDC key or
> >>>>>> PTT up, and about 0.5 VDC key down or TUNE position. The 15 ohm Cathode resistors of the PA should drop about 0.53 VDC
> >>>>>> each, IF they are 15 ohms. Measure! You can measure the voltage drop across R36 to measure actual current. Verify

> >>>>>> that R36 is 2.7 Ohms.
> >>>>>>
> >>>>>> If voltages are good and still no current, the PA tube(s) are bad. I HAVE seen tubes that heat and look good that will
> >>>>>> pass NO current. Most likely you have a resistor or two that has gone up in value with age, probably R32 and/or R33.
> >>>>>>
> >>>>>> Be careful measuring in the PA compartment UNDER the chassis, as both Plate and Screen voltages are present. HIGH VOLTAGE!!
> >>>>>>
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> >>>>>> Glen Allen, VA
> >>>>>>
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> >>>>>>
> >>>>>> rf200655 wrote:
> >>>>>>> Can not get .07 on meter . Checked V5& V6 PIN 2 have -60 V Checked the meter resistors the diode the switch ,meter .
> >>>>>>> Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust - Bias .
> >>>>>>>
> >>>>>>>
>

18289. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 02:23:10 UTC
From: Jim Shorney
Topic: 18279 Message: 18289

Correct. The UP/DOWN buttons still work fine too. You just lose the stops. This allows you to step outside of the band range limit. The radio still works as long as the PLL stays in lock, but performance degrades the farther you go as you get into the skirts if the high- or low-pass filters. I had mine runnnnig up tp 32.something MHz on 10 Meters before the PLL dropped lock. The danger arises from attempting to transmit through the low pass filter. If you get into the skirt area, which is possible on some bands, you could let the smoke out of some parts. Not an issue unless you have an allband transmit mod, but the mods fool with the transmit inhibit circuits and make this possible.

73

-Jim
NU0C

On Sat, 25 Jan 2014 00:03:48 +0100, Dieter Horst wrote:

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>happens...nothing The main purpose of the PROM is the band edge
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18290. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 03:31:53 UTC
From: Garey Barrell
Topic: 18279 Message: 18290

I understand if you remove it 'completely', but what if a U9003 output fails shorted??
Which gates can do.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>
> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
> HyGain 3750 User's Group -http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org

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>
> Yahoo Groups Links
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18291. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 04:01:01 UTC
From: Jim Shorney
Topic: 18279 Message: 18291

And proud of it!

On Fri, 24 Jan 2014 17:25:42 -0500, Garey Barrell wrote:

>Because he's a troublemaker....
>
>73, Garey - K4OAH
>
>Dieter Horst wrote:
>>
>> How come Jim knows that so well.... ;-)
>>
>> 73s Dieter DL5RDO

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18292. Re: [DrakeRadio] TR7 -DR7 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 04:09:38 UTC
From: Jim Shorney
Topic: 18279 Message: 18292

In that case removing U9003 and seeing normal syntesizer operation resume would identify the source of the problem.

73

-Jim
NU0C

On Fri, 24 Jan 2014 22:31:53 -0500, Garey Barrell wrote:

>I understand if you remove it 'completely', but what if a U9003 output fails shorted?? Which gates can do.
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
>> Correct. The UP/DOWN buttons still work fine too. You just lose the stops. This
>> allows you to step outside of the band range limit. The radio still works as
>> long as the PLL stays in lock, but performance degrades the farther you go as
>> you get into the skirts if the high- or low-pass filters. I had mine runnnnig
>> up tp 32.something MHz on 10 Meters before the PLL dropped lock. The danger
>> arises from attempting to transmit through the low pass filter. If you get into
>> the skirt area, which is possible on some bands, you could let the smoke out of
>> some parts. Not an issue unless you have an allband transmit mod, but the mods
>> fool with the transmit inhibit circuits and make this possible.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>>
>> On Sat, 25 Jan 2014 00:03:48 +0100, Dieter Horst wrote:
>>
>>> He said "removed completely"... And in fact that is what
>>> happens...nothing The main purpose of the PROM is the band edge
>>> feature in conjunction with the up/down buttons.
>>>
>>> So without (!) U9003 the TR7 works just fine unless you push the up/down
>>> buttons.
>>>

>>> Dieter DL5RDO
>>>
>>>
>>>
>>>
>>> Am 24.01.2014 23:27, schrieb Garey Barrell:
>>>> Oh yeah??? What if a U9003 output shorts to ground?!?!!
>>>>
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>>
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>>
>>>> Jim Shorney wrote:
>>>>> It's worth noting that the band programming logic on the DR-7 will
>>>> function
>>>>> perfectly normally with PROM U9003 removed completely. What you
>>>> loose is the
>>>>> UP/DOWN "stops" at the range edges printed on the bandswitch and the
>>>> H.B. flag
>>>>> to the transmit innhibit circuit on the D.C. board.
>>>>>
>>>>> 73
>>>>>
>>>>> -Jim
>>>>> NU0C
>>>>>
>>>>>
>>>>> On Fri, 24 Jan 2014 11:44:25 -0500, Garey Barrell wrote:
>>>>>
>>>>>> Carl -
>>>>>>
>>>>>> You may have a PROM problem.
>>>>>>
>>>>>> Check the IN and OUT logic of DR-7 with the attached chart.
>>>>>>
>>>>>> 73, Garey - K4OAH
>>>>>> Glen Allen, VA
>>>>>>
>>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>>> and TR-4/C Service Supplement CDs
>>>>>> <www.k4oah.com>
>>>>>>
>>>>>> Chgypsy@... wrote:
>>>>>>> Hi to the group,
>>>>>>> TR7 stuff
>>>>>>> First symptoms and past tense...screwed up frequencies and
>>>> readouts 2 megs off...low EG 14meg is 12 Meg. 7Meg is 5 meg

>>>>>>> Could use the up down buttons to get to 14 M stuff that worked as
>>>> well as what appear to be 7M. There were also
>>>>>>> signals in the 21 M region as I recall.
>>>>>>> Last step, pull the DR7 board and substitute the extender set
>>>> jumper board, all straightened out. Obvoious no
>>>>>>> digits, and no up/down.
>>>>>>> Substituted a second DR7 board (no digital reads) and all is
>>>> straightened out too. So its apparent that the problems
>>>>>>> are on the DR7.
>>>>>>> Considering that the up down buttons have always worked it would
>>>> appear to me that changing the two CMOS chips
>>>>>>> (14050's) U9007 & 9008 should fix the original headache. That's
>>>> all that's on the jumper board.
>>>>>>> Am after a thought conclusion or not on the above consideration
>>>> statement.
>>>>>>> 73's , Carl WD8NHK
>>>>>>> PS Can't leave well enough alone
>>>>>>> In the meantime, the original DR7 board that had digital read but
>>>> screwed up frequencies was being used to ferret out
>>>>>>> the problem with the second DR7 board with good frequencies but no
>>>> digitals....SIGH...
>>>>>>> Scrounged an O scope, looking at patterns for what its supposed to do.
>>>>>>> I blew out U9019. Clumsy oaf.........new chips on the way, perhaps
>>>> fix both DR7 boards., more work.
>>>>>> [Non-text portions of this message have been removed]
>>>>>>
>>>>>>
>>>>> --
>>>>> Ham Radio NU0C
>>>>> Lincoln, Nebraska, U.S.S.A.
>>>>> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A,
>>>> GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>>>>> "Give a man a URL, and he will learn for an hour; teach him to
>>>> Google, and he will learn for a lifetime."
>>>>> HyGain 3750 User's Group -http://groups.yahoo.com/group/HyGain_3750/
>>>>> http://incolor.inetnebr.com/jshorney
>>>>> http://www.nebraskaghosts.org
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>>>>> Yahoo Groups Links
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>> --
>> Ham Radio NU0C

>> Lincoln, Nebraska, U.S.S.A.
>> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>>
>> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>>
>> HyGain 3750 User's Group -http://groups.yahoo.com/group/HyGain_3750/
>> http://incolor.inetnebr.com/jshorney
>> http://www.nebraskaghosts.org
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>> Yahoo Groups Links
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--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18293. FS: Astatic cord for D-104

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 05:37:37 UTC
From: Evan Rolek
Topic: 576 Message: 18293

Fellow Drake Enthusiasts,

I'm cleaning up an old, unused Astatic microphone for my T4Xc and possibly Johnson Valiant. The original, unused cord is a two conductor cable, with one conductor being shielded for the mic input. The cable is black, with smooth rubber outer jacket, not a coiled cord. It is still wrapped as original from the factory and I unsoldered it from the G-Stand. It isn't suitable for my particular application so I thought I would offer it to somebody in the group that might be able to use it. I'll send it to the first responder for $5, shipped via Priority Mail flat rate box.

Enjoy those Drakes.

73,

Evan, K9SQG

18294. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 16:09:41 UTC
From: <garywinblad@...>
Topic: 18218 Message: 18294

Doesn't the TR-4 have an "FSK" terminal on the PTO like other 4 lines?

An external varicap and simple control circuitry should allow RIT.

I have a Drake app note on how to do FSK on a T-4X,and have it implemented
in my T-4X by the previous owner... RIT should be real similar... and easy!

73,
Gary
WB6OGD

18295. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 16:34:25 UTC
From: Garey Barrell
Topic: 18218 Message: 18295

Gary -

Not exactly.....

Yes, the TR-4 PTO has the same FSK terminal as the T-4X. Works great for 170 Hz, or even 850 Hz shift. Thing is, it
only shifts the frequency UP, and unlikely you could get much over 1 kHz.

The SAME terminal on the PTO for the TR-4CwRIT drives an internal varicap circuit, allowing plus and minus 3-4 kHz
shift, typical RIT. The RIT model is the only one with that PTO. Of course there is also a small IC controller board
as well to switch between receive and transmit, etc.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

garywinblad@... wrote:
>
>
> Doesn't the TR-4 have an "FSK" terminal on the PTO like other 4 lines?
>
> An external varicap and simple control circuitry should allow RIT.
>
> I have a Drake app note on how to do FSK on a T-4X,and have it implemented
> in my T-4X by the previous owner... RIT should be real similar... and easy!
>
> 73,
> Gary
> WB6OGD

18296. Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-25 22:20:58 UTC
From: Kris Merschrod
Topic: 17370 Message: 18296

Steve and Garey,

Thanks for the color codes and purpose of the PTO wires - I am almost there - the ground post was easy to recall; the signal out wire to board #1 was easy to figure out (using Garey's CD), but now I am at a loss on just where the post or lug is for the Vcc.

When I look at Board #1 I think that I see that the Vcc comes from the post just above Q4 and next to R150. Is that the correct connection for the Red/White Vcc line?

Confession - I am red/green color blind and the colors on the wires are a tad faded, but the XYL humors me and helps out.

Many thanks,

Kris KM2KM

----- Original Message -----
From: Steve VK2SJA
To: DrakeRadio@yahoogroups.com
Sent: Friday, January 17, 2014 10:42 PM
Subject: Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Hi All,

I've just got my TR-4C PTO on the bench. I've got:-

Black/White = Ground
Green/White = Signal Out
Red/White = Vcc (+11 volts)

Rig does show signs of having been tampered with though. Green/White wire total cold solder joint to vertical PCB underneath. Wire would spin freely in joint. So I'm guessing the radio was perhaps a little intermittent.

Some sort of grease used on PTO front end. Took ages to clean (most) of it off!

Slowly bringing her back to life.

73, Steve.

> Kris -
>
> There is a Red or Wht/Red wire coming out of the PTO on the bottom,
> accessible under the chassis.
>

> 000 on the dial should read 5.500 MHz, and 500 should read 4.900 MHz.
> Simpler to just set on frequency with the Calibrator
>
> Easiest place to get the 9.000 MHz is on the wiper (center) terminal of
> the BALANCE pot. This may need to be tweaked
> one way or the other to accommodate less than perfect filter response.
> Think of the letter "M" with the two peaks flat
> on top, representing the filter bandwidths from 400 - 2500 Hz. The carrier
> sits in the "V" in the middle, approximately,
> resulting in b/w of 400 - 2500 on either sideband. If the CAR OSC is off
> center by 200 Hz, one b/w will then be 200 -
> 2300 Hz, and the other will be 600 - 2700 Hz. Nominal adjustment is to
> adjust he CAR OSC slightly in either direction
> until the noise sounds about the same on either LSB or USB.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Kris Merschrod wrote:
>> ï»¿
>>
>> Ok, guys, now that I've read a couple of the filter articles on the
>> website and I am up to my ears into the TR-4C
>> project, I'd like to put the probe of my frequency counter in the right
>> places to measure:
>> 1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so
>> that I can set the dial to the right place)
>> 2) While I am at it, where to probe for the 9 MHz IF?
>> Many thanks,
>> Kris KM2KM
>>
>>
>>
>
>

18297. radio sorta stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 00:11:39 UTC
From: Chgypsy@...
Topic: 18297 Message: 18297

Ok I fess up... 33 deg F. Wind @ 15-20 and I'm working on substituting an RG8 to an antenna.
XYL says I'm nuts, but it was the warmest day for a while and in the forcast. Dragged my feet from 2 " to 1.5 ft of snow to lay a cable out on the snow...fixed the problem though.....Carl WD8NHK

18298. Re: [DrakeRadio] radio sorta stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 00:16:25 UTC
From: john
Topic: 18297 Message: 18298

Antenna systems installed in bad weather work MUCH better!

John
K5MO

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18299. Re: [DrakeRadio] radio sorta stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 00:21:34 UTC
From: Chgypsy@...
Topic: 18297 Message: 18299

johnmb@... (mailto:johnmb@...) writes:

Antenna systems installed in bad weather work MUCH better! John K5MO
Still can't get the rotator to turn on the beam
though.....sigh..... probably frozen.
XYL forbade (Thank you dear) me from climbing the tower, nice to know she
still cares.
Or is it that she doesn't want to go explaining to the insurance
folks....hmmmm
Carl WD8NHK

18300. Re: [DrakeRadio] radio sorta stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 01:23:34 UTC
From: barcand@...
Topic: 18297 Message: 18300

The effectiveness of any antenna is inversely proportional to the product of the ambient air temperature times the wind-speed divided by the hours being subject to the above. In common layman's terms...the colder it is, the better it works!!

Bernie in ND
WD0GMD

On Sat, January 25, 2014 6:11 pm, Chgypsy@... wrote:
> Ok I fess up... 33 deg F. Wind @ 15-20 and I'm working on substituting
> an
> RG8 to an antenna.
> XYL says I'm nuts, but it was the warmest day for a while and in the
> forcast. Dragged my feet from 2 " to 1.5 ft of snow to lay a cable out on
> the
> snow...fixed the problem though.....Carl WD8NHK

18301. Re: [DrakeRadio] Re: - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 02:18:40 UTC
From: Garey Barrell
Topic: 18230 Message: 18301

Ray -

The bottom end of R36 should NOT be at ground when the relay is NOT engaged. If it was, you'd have idle current in the
PA all the time.

Let me know!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rf200655 wrote:
> Garey
>
> The R36 is at ground with out relay in gaged also at ground when relay is in gaged . Tried 3 different meters . Shack is in separate building got heat on now Going back in hour to do rest you suggested .
>
> Thanks 73
> Ray
>
> --- In DrakeRadio@yahoogroups.com, Garey Barrell <k4oah@...> wrote:
>> Ray -
>>
>> Be SURE these voltages are at zero before touching anything in the transmitter. Again, there is +650 VDC UNDER the
>> chassis, along with the +250 VDC.
>>
>> If these are voltages _at the tube pins_ the tubes are drawing Plate current. Sometimes the voltage gets 'lost'
>> between the socket tab and the pin, so best to touch your probe to the tube pin itself where it protrudes through the
>> socket.
>>
>> However ...
>>
>> If R36 measures 3.9 ohms, (10.9 / (17.9+3.9 = 21.8 ohms) = 500 mA through V5!! Not likely, unless it's melted down into
>> the socket. And;
>>
>> then 5.7 / (3.9 + 18.1 = 22) = 260 mA, also enough to melt V6.
>>

>> So.... We have a problem. The above assumes that the ''bottom" end of R36 is at 0.0 VDC, which it should be IF the
>> relay contact is closing properly. If not 0, what IS the voltage? Measure resistance from the bottom of R36 to chassis
>> (Power OFF) while depressing the armature of the relay with a pencil.
>>
>> What is the color code on resistor R36? It should be Red/Violet/Gold. If it is, it has gone up in value and should be
>> changed. Not immediately, it's good enough for troubleshooting as it is. IF the color code is Orange/Blue/Gold, it's
>> probably been replaced with the wrong resistor. Again, not an immediate problem.
>>
>> You can measure the current through each tube by measuring the voltage ACROSS R32 and dividing it by 17.9; and R33
>> divided by 18.1. Both these need to be replaced with 15 ohm, 1 W ceramic composition resistors, but again are 'close
>> enough' at this point.
>>
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Ray Fair wrote:
>>> Garey
>>>
>>> R36=3.9 R32=17.9 R33=18.1. Relay ingages
>>> V5. V6
>>> 1=257. 1=260
>>> 2=- 62. 2= - 62
>>> 3=10.9. 3=5.7
>>> 4=0. 4=6.13
>>> 5=6. 5=12.6
>>> 6=-62. 6=-62
>>> 7=256. 7=257
>>> 8=0. 8=0
>>> 73
>>> Thanks Ray
>>>
>>>
>>>
>>> Sent from my ASUS Pad
>>>
>>> Garey Barrell <k4oah@...> wrote:
>>>
>>>> Ray -
>>>>

>>>> OK. We'll get them going. Check those voltages _tomorrow_ when you're awake and report back. NO current is pretty
>>>> easy, since it's just a matter of having the right DC voltages on the tube elements, and grounding the bottom of R36.
>>>>
>>>> The transmitter hasn't been set up for VHF has it? Two extra RCA jacks on the rear panel right next to the power
>>>> connector.?
>>>>
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>>
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>>
>>>> crf2@... wrote:
>>>>> Garey
>>>>>
>>>>> This a set of twins had for 20 years plus yrs the AC4 Power supply was apart when I bought them You have helped me rebuilding the RB4 and Lots help on the AC4
>>>>> Again Thanks for help
>>>>>
>>>>> 73 Ray
>>>>> ---- Garey Barrell <k4oah@...> wrote:
>>>>>> Ray -
>>>>>>
>>>>>> OK.... Measure the voltages below _at the PA tube pins_.
>>>>>>
>>>>>> No Screen voltage will give zero current.
>>>>>>
>>>>>> Cathodes not grounded will give zero current and positive HV on Cathode pins. Path to ground is through two 15 ohm
>>>>>> resistors, RF Choke, R36, relay contact.
>>>>>>
>>>>>> Is this a 'new to you' transmitter, or one you know to have worked previously?
>>>>>>
>>>>>> 73, Garey - K4OAH
>>>>>> Glen Allen, VA
>>>>>>
>>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>>> and TR-4/C Service Supplement CDs
>>>>>> <www.k4oah.com>
>>>>>>
>>>>>> crf2@... wrote:
>>>>>>> Garey
>>>>>>>
>>>>>>> No current
>>>>>>>
>>>>>>> 73

>>>>>>> Ray
>>>>>>> ---- Garey Barrell <k4oah@...> wrote:
>>>>>>>> Ray -
>>>>>>>>
>>>>>>>> You're not clear if you are measuring NO, too little, or too much PLATE current.
>>>>>>>>
>>>>>>>> Check voltages on all PA tube pins. IF the Plate and Screen voltages are present and the Cathode is grounded, the tubes
>>>>>>>> will pull maximum current, to destruction! A negative voltage on the Grids (~ -62 VDC) limits that current to 0.07A.
>>>>>>>> This is regardless of any other voltage or stage in the radio. The Cathode pins in SSB should read about 150 VDC key or
>>>>>>>> PTT up, and about 0.5 VDC key down or TUNE position. The 15 ohm Cathode resistors of the PA should drop about 0.53 VDC
>>>>>>>> each, IF they are 15 ohms. Measure! You can measure the voltage drop across R36 to measure actual current. Verify
>>>>>>>> that R36 is 2.7 Ohms.
>>>>>>>>
>>>>>>>> If voltages are good and still no current, the PA tube(s) are bad. I HAVE seen tubes that heat and look good that will
>>>>>>>> pass NO current. Most likely you have a resistor or two that has gone up in value with age, probably R32 and/or R33.
>>>>>>>>
>>>>>>>> Be careful measuring in the PA compartment UNDER the chassis, as both Plate and Screen voltages are present. HIGH VOLTAGE!!
>>>>>>>>
>>>>>>>> 73, Garey - K4OAH
>>>>>>>> Glen Allen, VA
>>>>>>>>
>>>>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>>>>> and TR-4/C Service Supplement CDs
>>>>>>>> <www.k4oah.com>
>>>>>>>>
>>>>>>>> rf200655 wrote:
>>>>>>>>> Can not get .07 on meter . Checked V5& V6 PIN 2 have -60 V Checked the meter resistors the diode the switch ,meter .
>>>>>>>>> Any Ideas The AC4 Has been rebuilt Heath Kit ,can adjust - Bias .
>>>>>>>>>
>>>>>>>>>
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18302. Re: [DrakeRadio] Re: - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 03:41:39 UTC
From: Richard Knoppow
Topic: 18230 Message: 18302

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, January 25, 2014 6:18 PM
Subject: Re: [DrakeRadio] Re: - Bias T4XB

> Ray -
>
> The bottom end of R36 should NOT be at ground when the
> relay is NOT engaged. If it was, you'd have idle current
> in the
> PA all the time.
>
> Let me know!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

I am a little puzzled by what is being discussed. If I understand the circuit the meter measures a sample of the cathode current drawn by the final amplifiers. One side of the meter goes through a switch used to change its function to RF. When set to read plate current the meter is connected though a series resistor used to adjust its sensitivity. The meter and series resistor are also across a parallel or shunting resistor R-36 which is in the line from the cathodes to three contacts on S-2. It also goes to the cathode of the AM modulator. I have tried to follow this out on the computer screen but my eye looses track. It does not appear that it can go to ground anywhere. However, its one of those places where its useful to mark up a large scale schematic with colored pencils or hi-liters. I think it might be useful to do this and re-draw the circuits through the switches in a simplified form. This will tell exactly where the circuit goes and might clarify where it could go wrong. Since some contacts on the switches go to ground its possible there is a short or bad contact there somewhere. A simplified drawing might point in the right direction to look for a problem like this. I may be missing something but I don't see how the relay could have any effect on the path to ground of this resistor. The relay has three sets of

contacts; one switches the antenna connector to either the tank circuit or the receiver connector, the second switches a ground so that in receive it grounds the mute jack to the receiver and opens the cathode return of the carrier oscillator and first mixer, which mutes the exciter, in the other position it opens the receiver mute (muting the receiver) and grounds the cathode return to the above transmitter stages. The third set of contacts connects to the cable from the AC-4 where it is looped to a connector to provide a switch for the VOX control in an L4B amplifier. Without the amplifier these contacts do nothing.
It should be possible to tell if one is getting sensible voltages at the meter by using an external meter.
The T4-XB is pretty tightly packed so a visual inspection may easily miss something. Sometimes it helps to have another person look.
Please forgive me if I have misinterpreted this whole thread.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18303. 4-line ready

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 03:51:39 UTC
From: KA9EGW
Topic: 18303 Message: 18303

The twins are alive, tested and ready to go to their forever home. www dot britewerkz dot com updated accordingly 73, Brian KA9EGW

18304. TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 07:31:55 UTC
From: <damico@...>
Topic: 18304 Message: 18304

Hello group,
my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok. Since I never owned a TR7 before, I don't know if this is normal or not... if not, what could be a possible reasons? Obviously, I can live with it, it is just a very minor nuisance....
Thanks and 73,

Michele IZ2EAS

18305. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 14:07:18 UTC
From: Chgypsy@...
Topic: 18304 Message: 18305

damico@... (mailto:damico@...) writes:

Hello group,
my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok. Michele IZ2EAS
Michele, I just went to mine and up- down was available immediately.

You will see the following in print many times in regards to the TR7 & R7. This in particular if your unit has not been used for a while as in...stored. Pulling and reseating boards for a lot of different symptoms.

In your case I think.....Pull the outer cover and.....
Simply pulling off and reseating the brown pin hi/lo connector on the DR7 board could cure your problem.
Personally if you are going to do one I'd do all 5. Please be careful in the right front corner with the small power supply board that has the blue one turn pots, they are easily bumped when working with the DR7 board and a total reallignment could be the result.

Good luck, 73 Carl WD8NHK

18306. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 12:56:23 UTC
From: Marco B.
Topic: 18270 Message: 18306

Thanks Garey and
bookmarked it in my Drake folder. I am one of those who likes to solder!
The transformer top bolts have what seems to be enough for the stand-offs but the bottom 2 are flush with the nuts.
But they are in the right direction.

Marco

On Thursday, January 23, 2014 8:40:44 PM, Garey Barrell <k4oah@...> wrote:

Marco -

Welcome to the DrakeRadio list.!

Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
<harbachelectronics.com>.

I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
and won't accept the stand-offs of the Heathkit shop version.

A plus or minus for the Harbach version is that the PC boards are already assembled, and how much you like stuffing and
soldering boards! Some of us find that to be the best part.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

18307. Re: [DrakeRadio] Re: - Bias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:07:01 UTC
From: Garey Barrell
Topic: 18230 Message: 18307

Richard -

You are close! :-) The PA is keyed by the MUTE set of contacts. The grounding of this point is ALSO controlled via
the TRANSCEIVE (S2A (f & r)), and FUNCTION (S1B (r)) switches. I've never tried to trace it all the way through, but
there are multiple paths depending upon switch selections. FYI, the relay keys it via the line going over the top to
ground the cathodes of the Car Osc (via S1B (r)), IF and Mixer. That line comes down through the various switch
combinations to the line across the bottom that goes to the relay contact!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> ----- Original Message -----
> From: "Garey Barrell" <k4oah@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Saturday, January 25, 2014 6:18 PM
> Subject: Re: [DrakeRadio] Re: - Bias T4XB
>
>
>> Ray -
>>
>> The bottom end of R36 should NOT be at ground when the
>> relay is NOT engaged. If it was, you'd have idle current
>> in the
>> PA all the time.
>>
>> Let me know!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
> I am a little puzzled by what is being discussed. If I
> understand the circuit the meter measures a sample of the
> cathode current drawn by the final amplifiers. One side of
> the meter goes through a switch used to change its function

> to RF. When set to read plate current the meter is connected
> though a series resistor used to adjust its sensitivity. The
> meter and series resistor are also across a parallel or
> shunting resistor R-36 which is in the line from the
> cathodes to three contacts on S-2. It also goes to the
> cathode of the AM modulator. I have tried to follow this out
> on the computer screen but my eye looses track. It does not
> appear that it can go to ground anywhere. However, its one
> of those places where its useful to mark up a large scale
> schematic with colored pencils or hi-liters. I think it
> might be useful to do this and re-draw the circuits through
> the switches in a simplified form. This will tell exactly
> where the circuit goes and might clarify where it could go
> wrong. Since some contacts on the switches go to ground its
> possible there is a short or bad contact there somewhere. A
> simplified drawing might point in the right direction to
> look for a problem like this. I may be missing something
> but I don't see how the relay could have any effect on the
> path to ground of this resistor. The relay has three sets of
> contacts; one switches the antenna connector to either the
> tank circuit or the receiver connector, the second switches
> a ground so that in receive it grounds the mute jack to the
> receiver and opens the cathode return of the carrier
> oscillator and first mixer, which mutes the exciter, in the
> other position it opens the receiver mute (muting the
> receiver) and grounds the cathode return to the above
> transmitter stages. The third set of contacts connects to
> the cable from the AC-4 where it is looped to a connector to
> provide a switch for the VOX control in an L4B amplifier.
> Without the amplifier these contacts do nothing.
> It should be possible to tell if one is getting sensible
> voltages at the meter by using an external meter.
> The T4-XB is pretty tightly packed so a visual
> inspection may easily miss something. Sometimes it helps to
> have another person look.
> Please forgive me if I have misinterpreted this whole
> thread.
>

18308. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:16:55 UTC
From: Gary Woods
Topic: 18304 Message: 18308

On 25 Jan 2014 23:31:55 -0800, you wrote:

> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok.

That's normal; there's a time delay, probably to make sure everything is locked.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

18309. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:16:35 UTC
From: Garey Barrell
Topic: 18270 Message: 18309

Marco -

You could probably go with just the top two bolts, and perhaps a simple "L" bracket on one of the bottom holes. Some
have drilled four holes in the end panel of the supply cabinet and mounted it there.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Marco B. wrote:
>
>
>
> Thanks Garey and bookmarked it in my Drake folder. I am one of those who likes to solder!
> The transformer top bolts have what seems to be enough for the stand-offs but the bottom 2 are flush with the nuts.
> But they are in the right direction.
> Marco
>
>
> On Thursday, January 23, 2014 8:40:44 PM, Garey Barrell <k4oah@...> wrote:
> Marco -
>
> Welcome to the DrakeRadio list.!
>
> Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
> <harbachelectronics.com>.
>
> I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
> check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
> and won't accept the stand-offs of the Heathkit shop version.
>
> A plus or minus for the Harbach version is that the PC boards are already assembled, and how much you like stuffing and
> soldering boards! Some of us find that to be the best part.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>
>
>
>
>
>

18310. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:23:21 UTC
From: Garey Barrell
Topic: 18304 Message: 18310

Gary -

I don't think so. I have two here, and both switch immediately on power up. Nothing in the schematic to delay it.

Interesting though if yours has the same problem! :-)

Carl is likely on the right path.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Gary Woods wrote:
> On 25 Jan 2014 23:31:55 -0800, you wrote:
>
>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok.
> That's normal; there's a time delay, probably to make sure everything is
> locked.
>

18311. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:26:49 UTC
From: Jim Shorney
Topic: 18304 Message: 18311

As they say in the software business, that's not a bug, it's a feature. Mine does this too, and for years I thought something was wrong but never looked into it because it was only a minor annoyance. Only recently I stumbled upon a note on page 3-2 of the Owners Manual for sections I & J, to the effect that there is a 15-20 second powerup delay for the UP/DOWN buttons.

Sometimes it's surprising what you find when you RTFM.

73

-Jim
NU0C

On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:

>On 25 Jan 2014 23:31:55 -0800, you wrote:
>
>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok.
>
>That's normal; there's a time delay, probably to make sure everything is
>locked.
>
>--
>Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
>Zone 5/4 in upstate New York, 1420' elevation. NY WO G
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18312. Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:35:55 UTC
From: Garey Barrell
Topic: 17370 Message: 18312

Kris -

There are only three wires coming out of the bottom of the PTO. One is ground and goes to a ground lug.

The Red wire goes to the terminal on the left edge of Board 1 located at about the middle of R150. There should also be
another Red wire connected to that same terminal. It's clearly visible in the Board 1 photo.

CAUTION do NOT apply power with that wire disconnected!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Kris Merschrod wrote:
>
>
> Steve and Garey,
> Thanks for the color codes and purpose of the PTO wires - I am almost there - the ground post was easy to recall; the
> signal out wire to board #1 was easy to figure out (using Garey's CD), but now I am at a loss on just where the post
> or lug is for the Vcc.
> When I look at Board #1 I think that I see that the Vcc comes from the post just above Q4 and next to R150. Is that
> the correct connection for the Red/White Vcc line?
> Confession - I am red/green color blind and the colors on the wires are a tad faded, but the XYL humors me and helps out.
> Many thanks,
> Kris KM2KM
>
> ----- Original Message -----
> *From:* Steve VK2SJA <mailto:vk2sja@...>
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Sent:* Friday, January 17, 2014 10:42 PM
> *Subject:* Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project
>
> Hi All,
>
> I've just got my TR-4C PTO on the bench. I've got:-
>
> Black/White = Ground

> Green/White = Signal Out
> Red/White = Vcc (+11 volts)
>
> Rig does show signs of having been tampered with though. Green/White wire
> total cold solder joint to vertical PCB underneath. Wire would spin freely
> in joint. So I'm guessing the radio was perhaps a little intermittent.
>
> Some sort of grease used on PTO front end. Took ages to clean (most) of it
> off!
>
> Slowly bringing her back to life.
>
> 73, Steve.
>
> > Kris -
> >
> > There is a Red or Wht/Red wire coming out of the PTO on the bottom,
> > accessible under the chassis.
> >
> > 000 on the dial should read 5.500 MHz, and 500 should read 4.900 MHz.
> > Simpler to just set on frequency with the Calibrator
> >
> > Easiest place to get the 9.000 MHz is on the wiper (center) terminal of
> > the BALANCE pot. This may need to be tweaked
> > one way or the other to accommodate less than perfect filter response.
> > Think of the letter "M" with the two peaks flat
> > on top, representing the filter bandwidths from 400 - 2500 Hz. The carrier
> > sits in the "V" in the middle, approximately,
> > resulting in b/w of 400 - 2500 on either sideband. If the CAR OSC is off
> > center by 200 Hz, one b/w will then be 200 -
> > 2300 Hz, and the other will be 600 - 2700 Hz. Nominal adjustment is to
> > adjust he CAR OSC slightly in either direction
> > until the noise sounds about the same on either LSB or USB.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Kris Merschrod wrote:
> >> □
> >>
> >> Ok, guys, now that I've read a couple of the filter articles on the
> >> website and I am up to my ears into the TR-4C
> >> project, I'd like to put the probe of my frequency counter in the right
> >> places to measure:
> >> 1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so

> >> that I can set the dial to the right place)
> >> 2) While I am at it, where to probe for the 9 MHz IF?
> >> Many thanks,
> >> Kris KM2KM
> >>
>

18313. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:37:23 UTC
From: Garey Barrell
Topic: 18304 Message: 18313

WELLLLL then smarty ... How come neither of mine -OR- Carl's have the delay??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> As they say in the software business, that's not a bug, it's a feature. Mine
> does this too, and for years I thought something was wrong but never looked
> into it because it was only a minor annoyance. Only recently I stumbled upon a
> note on page 3-2 of the Owners Manual for sections I & J, to the effect that
> there is a 15-20 second powerup delay for the UP/DOWN buttons.
>
> Sometimes it's surprising what you find when you RTFM.
>
> 73
>
> -Jim
> NU0C
>
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>
>> On 25 Jan 2014 23:31:55 -0800, you wrote:
>>
>>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN
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from turn-on, they start working regularly... apart from that, everything else is
absolutely ok.
>> That's normal; there's a time delay, probably to make sure everything is
>> locked.
>>
>> --
>> Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
>> Zone 5/4 in upstate New York, 1420' elevation. NY WO G
>>
>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain
3750, IBM PS/2 - all vintage, all the time!
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> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn

for a lifetime."
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> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
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> Yahoo Groups Links
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18314. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:39:36 UTC
From: Jim Shorney
Topic: 18304 Message: 18314

Simple. You guys have broken ones. :D

73

-Jim
NU0C

On Sun, 26 Jan 2014 10:37:23 -0500, Garey Barrell wrote:

>WELLLLL then smarty ... How come neither of mine -OR- Carl's have the delay??
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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><www.k4oah.com>
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http://incolor.inetnebr.com/jshorney
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18315. Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:45:30 UTC
From: Kris Merschrod
Topic: 17370 Message: 18315

Thank you Garey,

I just have to start to label wires with a masking tape tag and also need to take digital photos BEFORE I start pulling things apart. No power applied yet - I will report on the "smoke test" in a few days, Then the calibration of the dial.

Kris KM2KM

----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Sunday, January 26, 2014 10:35 AM
Subject: Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project

Kris -

There are only three wires coming out of the bottom of the PTO. One is ground and goes to a ground lug.

The Red wire goes to the terminal on the left edge of Board 1 located at about the middle of R150. There should also be
another Red wire connected to that same terminal. It's clearly visible in the Board 1 photo.

CAUTION do NOT apply power with that wire disconnected!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Kris Merschrod wrote:
>
>
> Steve and Garey,
> Thanks for the color codes and purpose of the PTO wires - I am almost there - the ground post was easy to recall; the
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> or lug is for the Vcc.
> When I look at Board #1 I think that I see that the Vcc comes from the post just above Q4 and next to R150. Is that
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> Confession - I am red/green color blind and the colors on the wires are a tad faded, but the XYL humors me and helps out.
> Many thanks,
> Kris KM2KM
>
> ----- Original Message -----
> *From:* Steve VK2SJA <mailto:vk2sja@bigpond.com>
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Sent:* Friday, January 17, 2014 10:42 PM
> *Subject:* Re: [DrakeRadio] Where to put the probe for IF and PTO freq measurements? TR-4C resusitation project
>
> Hi All,
>
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>
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> Green/White = Signal Out
> Red/White = Vcc (+11 volts)
>
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> total cold solder joint to vertical PCB underneath. Wire would spin freely
> in joint. So I'm guessing the radio was perhaps a little intermittent.
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> Some sort of grease used on PTO front end. Took ages to clean (most) of it
> off!
>
> Slowly bringing her back to life.
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> 73, Steve.
>
> > Kris -
> >
> > There is a Red or Wht/Red wire coming out of the PTO on the bottom,
> > accessible under the chassis.
> >
> > 000 on the dial should read 5.500 MHz, and 500 should read 4.900 MHz.
> > Simpler to just set on frequency with the Calibrator
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> > Easiest place to get the 9.000 MHz is on the wiper (center) terminal of
> > the BALANCE pot. This may need to be tweaked
> > one way or the other to accommodate less than perfect filter response.
> > Think of the letter "M" with the two peaks flat
> > on top, representing the filter bandwidths from 400 - 2500 Hz. The carrier
> > sits in the "V" in the middle, approximately,
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> > center by 200 Hz, one b/w will then be 200 -
> > 2300 Hz, and the other will be 600 - 2700 Hz. Nominal adjustment is to
> > adjust he CAR OSC slightly in either direction
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> > 73, Garey - K4OAH
> > Glen Allen, VA
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> > Kris Merschrod wrote:
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> >>
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> >> project, I'd like to put the probe of my frequency counter in the right
> >> places to measure:
> >> 1) the PTO frequency (I want to measure the 5.0 MHz to 5.5 MHz range so
> >> that I can set the dial to the right place)
> >> 2) While I am at it, where to probe for the 9 MHz IF?
> >> Many thanks,
> >> Kris KM2KM
> >>
>

18316. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:45:51 UTC
From: Chgypsy@...
Topic: 18316 Message: 18316

k4oah@... writes:

How come neither of mine -OR- Carl's have the delay??, Garey - K4OAH
We could open up the discussion as to what serial number is involved. I
was using # 7049
but can hook up # 1513 for a second look see. Carl WD8NHK

18317. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:52:49 UTC
From: Steve Garwood
Topic: 18304 Message: 18317

It might have something to do with serial number ranges and if the delay was something that was added during production at some point. Might be worth looking into.

73,
Steve, N0CZV

Sent from my iPad

On Jan 26, 2014, at 10:39 AM, "Jim Shorney" <jshorney@...> wrote:

>
> Simple. You guys have broken ones. :D
>
> 73
>
> -Jim
> NU0C
>
> On Sun, 26 Jan 2014 10:37:23 -0500, Garey Barrell wrote:
>
> >WELLLLL then smarty ... How come neither of mine -OR- Carl's have the delay??
> >
> >73, Garey - K4OAH
> >Glen Allen, VA
> >
> >Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >and TR-4/C Service Supplement CDs
> ><www.k4oah.com>
> >
> >Jim Shorney wrote:
> >> As they say in the software business, that's not a bug, it's a feature. Mine
> >> does this too, and for years I thought something was wrong but never looked
> >> into it because it was only a minor annoyance. Only recently I stumbled upon a
> >> note on page 3-2 of the Owners Manual for sections I & J, to the effect that
> >> there is a 15-20 second powerup delay for the UP/DOWN buttons.
> >>
> >> Sometimes it's surprising what you find when you RTFM.
> >>
> >> 73
> >>
> >> -Jim
> >> NU0C
> >>
> >> On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:
> >>
> >>> On 25 Jan 2014 23:31:55 -0800, you wrote:

> >>>
> >>>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly... apart from that, everything else is absolutely ok.
> >>> That's normal; there's a time delay, probably to make sure everything is
> >>> locked.
> >>>
> >>> --
> >>> Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
> >>> Zone 5/4 in upstate New York, 1420' elevation. NY WO G
> >>>
> >>
> >> --
> >> Ham Radio NU0C
> >> Lincoln, Nebraska, U.S.S.A.
> >> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
> >>
> >> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
> >>
> >> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> >> http://incolor.inetnebr.com/jshorney
> >> http://www.nebraskaghosts.org
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> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
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> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney

> http://www.nebraskaghosts.org
>
>

18318. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:55:13 UTC
From: Garey Barrell
Topic: 18316 Message: 18318

Mine is 9616 and 66xx something. Perhaps THOSE are the 'broken' ones, and the _problem_ was fixed by the time ours
was built!?!?!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
>
>
> k4oah@... writes:
>
> How come neither of mine -OR- Carl's have the delay??, Garey - K4OAH
>
> We could open up the discussion as to what serial number is involved. I was using # 7049
> but can hook up # 1513 for a second look see. Carl WD8NHK
>
>
>

18319. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 15:58:52 UTC
From: Marco B.
Topic: 18270 Message: 18319

... yes a simple L bracket is... simple enough.
Thanks for your help Garey.

73 Marco

On Sunday, January 26, 2014 10:18:18 AM, Garey Barrell <k4oah@...> wrote:

Marco -

You could probably go with just the top two bolts, and perhaps a simple "L" bracket on one of the bottom holes. Some
have drilled four holes in the end panel of the supply cabinet and mounted it there.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Marco B. wrote:
>
>
>
> Thanks Garey and bookmarked it in my Drake folder. I am one of those who likes to solder!
> The transformer top bolts have what seems to be enough for the stand-offs but the bottom 2 are flush with the nuts.
> But they are in the right direction.
> Marco
>
>
> On Thursday, January 23, 2014 8:40:44 PM, Garey Barrell <k4oah@...> wrote:
> Marco -
>
> Welcome to the DrakeRadio list.!
>
> Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
> <harbachelectronics.com>.
>
> I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
> check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
> and won't accept the stand-offs of the Heathkit shop version.
>
> A plus or minus for the Harbach version is that the PC boards are already assembled, and

how much you like stuffing and
> soldering boards! Some of us find that to be the best part.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
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18320. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 16:01:12 UTC
From: Garey Barrell
Topic: 18304 Message: 18320

I think it was a 'bug' sold as a 'feature' until they got it fixed~!

I don't see anything on the schematic that would account for a delay..... at least not on purpose.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Garwood wrote:
>
>
> It might have something to do with serial number ranges and if the delay was something that was added during
> production at some point. Might be worth looking into.
>
> 73,
> Steve, N0CZV
>
> Sent from my iPad
>
> On Jan 26, 2014, at 10:39 AM, "Jim Shorney" <jshorney@... <mailto:jshorney@...>> wrote:
>
>>
>> Simple. You guys have broken ones. :D
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Sun, 26 Jan 2014 10:37:23 -0500, Garey Barrell wrote:
>>
>> >WELLLLL then smarty ... How come neither of mine -OR- Carl's have the delay??
>> >
>> >73, Garey - K4OAH
>> >Glen Allen, VA
>> >
>> >Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> >Jim Shorney wrote:

>> >> As they say in the software business, that's not a bug, it's a feature. Mine
>> >> does this too, and for years I thought something was wrong but never looked
>> >> into it because it was only a minor annoyance. Only recently I stumbled upon a
>> >> note on page 3-2 of the Owners Manual for sections I & J, to the effect that
>> >> there is a 15-20 second powerup delay for the UP/DOWN buttons.
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>> >> On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:
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>> >>> On 25 Jan 2014 23:31:55 -0800, you wrote:
>> >>>
>> >>>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN
buttons will not be
>> operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they
start working regularly...
>> apart from that, everything else is absolutely ok.
>> >>> That's normal; there's a time delay, probably to make sure everything is
>> >>> locked.
>> >>>
>> >>> --
>> >>> Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
>> <http://home.earthlink.net/%7Egarygarlic>
>> >>> Zone 5/4 in upstate New York, 1420' elevation. NY WO G
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>> >>
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3750, IBM PS/2 - all vintage,
>> all the time!
>> >>
>> >> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will
learn for a lifetime."
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>>
>
>
>

18321. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 16:17:04 UTC
From: Dan Galligan
Topic: 18270 Message: 18321

Marco,
I am one of the few folks, who had difficulty with ONE of the Heathkit Shop sets. The setup is fine, and works well. My problem was that the shaft size, on the original transformer bolts, were too large for the Heathkit Shop's supplied standoffs. I committed blasphemy, by simply reversing the board, drilling four appropriately sized holes, in the end of the case, and installing it that way. It worked like a charm. But, it definitely diminishes the value of the power supply, because of modification.
All that said, I did three more AC-4's with the kit being sold at Harbach, the ES4AC4 kit. Much easier to install, works perfectly, and is a much cleaner appearance, (with the cover off) than the AC-4R kit from The Heathkit Shop. Either works fine, but, in my opinion, the ES4AC4 is the better deal by far.
BTW, the nice thing is that the designer and maker of each, are members of this list, and if you have any difficulty, they are always willing to give good advice.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Jan 26, 2014, at 9:58, "Marco B." <ve2mrn@...> wrote:
>
>
>
> ... yes a simple L bracket is... simple enough.
> Thanks for your help Garey.
>
> 73 Marco
>
>
> On Sunday, January 26, 2014 10:18:18 AM, Garey Barrell <k4oah@...> wrote:
> Marco -
>
> You could probably go with just the top two bolts, and perhaps a simple "L" bracket on one of the bottom holes. Some
> have drilled four holes in the end panel of the supply cabinet and mounted it there.
>
> 73, Garey - K4OAH

> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>
> Marco B. wrote:
> >
> >
> >
> > Thanks Garey and bookmarked it in my Drake folder. I am one of those who likes to solder!
> > The transformer top bolts have what seems to be enough for the stand-offs but the bottom 2 are flush with the nuts.
> > But they are in the right direction.
> > Marco
> >
> >
> > On Thursday, January 23, 2014 8:40:44 PM, Garey Barrell <k4oah@mindspring.com> wrote:
> > Marco -
> >
> > Welcome to the DrakeRadio list.!
> >
> > Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
> > <harbachelectronics.com>.
> >
> > I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
> > check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
> > and won't accept the stand-offs of the Heathkit shop version.
> >
> > A plus or minus for the Harbach version is that the PC boards are already assembled, and how much you like stuffing and
> > soldering boards! Some of us find that to be the best part.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
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18322. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 16:18:27 UTC
From: Garey Barrell
Topic: 18304 Message: 18322

AHA!!! No such note in my manual..... They got it fixed!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> As they say in the software business, that's not a bug, it's a feature. Mine
> does this too, and for years I thought something was wrong but never looked
> into it because it was only a minor annoyance. Only recently I stumbled upon a
> note on page 3-2 of the Owners Manual for sections I & J, to the effect that
> there is a 15-20 second powerup delay for the UP/DOWN buttons.
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> Sometimes it's surprising what you find when you RTFM.
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> 73
>
> -Jim
> NU0C
>
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>
>> On 25 Jan 2014 23:31:55 -0800, you wrote:
>>
>>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN
buttons will not be operative, i.e. pressing them has no effect. After about 15 seconds
from turn-on, they start working regularly... apart from that, everything else is
absolutely ok.
>> That's normal; there's a time delay, probably to make sure everything is
>> locked.
>>
>>

18323. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 16:51:46 UTC
From: Marco B.
Topic: 18270 Message: 18323

Dan, after 22 years of ownership, I have no intention of ever selling my Drake. Although it diminishes the value of the PS, I'd rather have that than harm the TR-4 from lack of not taking precautions. And having looked at the PS there is leakage on 2 of the caps.

I appreciate all the help I've been getting from the group. The kit will have to wait a little longer with the holiday bills being paid off as a priority.

It's great to be in this group.

Marco

On Sunday, January 26, 2014 11:17:27 AM, Dan Galligan <w3rxo@...> wrote:

Marco,
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All that said, I did three more AC-4's with the kit being sold at Harbach, the ES4AC4 kit. Much easier to install, works perfectly, and is a much cleaner appearance, (with the cover off) than the AC-4R kit from The Heathkit Shop. Either works fine, but, in my opinion, the ES4AC4 is the better deal by far.
BTW, the nice thing is that the designer and maker of each, are members of this list, and if you have any difficulty, they are always willing to give good advice.

73,
Dan
W3RXO/W5
Evening Shade, OK
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"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

On Jan 26, 2014, at 9:58, "Marco B." <ve2mrn@...> wrote:

... yes a simple L bracket is... simple enough.
>Thanks for your help Garey.
>
>

>73 Marco
>
>
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>On Sunday, January 26, 2014 10:18:18 AM, Garey Barrell <k4oah@...> wrote:
>
>
>Marco -
>
>You could probably go with just the top two bolts, and perhaps a simple "L" bracket on one of the bottom holes. Some
>have drilled four holes in the end panel of the supply cabinet and mounted it there.
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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><www.k4oah.com>
>
>Marco B. wrote:
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>>
>>
>> Thanks Garey and bookmarked it in my Drake folder. I am one of those who likes to solder!
>> The transformer top bolts have what seems to be enough for the stand-offs but the bottom 2 are flush with the nuts.
>> But they are in the right direction.
>> Marco
>>
>>
>> On Thursday, January 23, 2014 8:40:44 PM, Garey Barrell <k4oah@...> wrote:
>> Marco -
>>
>> Welcome to the DrakeRadio list.!
>>
>> Before you make your final decision on the AC-4 upgrade, take a look at the board set offered at Harbach Electronics
>> <harbachelectronics.com>.
>>
>> I have used both, and the two products are of equal quality and operation, just different mechanically. You might also
>> check your power transformer in the AC-4. Some have the transformer bolts in the other direction or covered in epoxy
>> and won't accept the stand-offs of the Heathkit shop version.
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>> A plus or minus for the Harbach version is that the PC boards are already assembled, and how much you like stuffing and
>> soldering boards! Some of us find that to be the best part.

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>> 73, Garey - K4OAH
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18324. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 17:12:32 UTC
From: Joe - W7RKN
Topic: 18270 Message: 18324

Like Dan, I too had to mount the board on the end side, due to the fact the transformer 'bolts' were on the wrong side. (If I remember, I 'believe' I uploaded pics to the pictures section) Yes, I had to drill 4 holes in the case to mount the board, but....I don't worry about losing my PS and/or the radio!! I also have another kit (ES4AC4) But haven't installed it yet.....when I decide to bring up the second 4B pair, I will rebuild its PS then.

Joe - W7RKN
----- Original Message -----
From: Dan Galligan
Subject: Re: [DrakeRadio] New to the list

Marco,
I am one of the few folks, who had difficulty with ONE of the Heathkit Shop sets. The setup is fine, and works well. My problem was that the shaft size, on the original transformer bolts, were too large for the Heathkit Shop's supplied standoffs. I committed blasphemy, by simply reversing the board, drilling four appropriately sized holes, in the end of the case, and installing it that way. It worked like a charm. But, it definitely diminishes the value of the power supply, because of modification.
BTW, the nice thing is that the designer and maker of each, are members of this list, and if you have any difficulty, they are always willing to give good advice.

18325. RE: TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 17:16:45 UTC
From: <damico@...>
Topic: 18304 Message: 18325

I don't have the original manual, I downloaded the one from Internet and there is no mention of the delay. BTW, the S/N of my TR7 is 4531 (mid-July 1979).
Thanks to all those who answered my question....
73,

Michele

18326. Re: [DrakeRadio] RE: TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 17:52:24 UTC
From: Garey Barrell
Topic: 18304 Message: 18326

Michele -

Don't let our kibitzing scare you off!! We really ARE friends..... :-)

There was considerable difference between TR-7s before and after around about s/n 5000 and some more in the s/n 6000
area that may account for these variations. That said, I don't think there are any REAL 'operational' issues between
the various versions. Some changes made servicing easier, others were cost cutting, and still others were just
'changes' to respond to the quirks that show up over the ~ three year production life of a product this complex. I
owned a 12xx unit for a while, and it worked just as well as the later ones.

They ALL suffer from 'connectoritis', that malady afflicting any solid-state equipment with hundreds of internal
connectors. The reliability of gold is too expensive for a product of this type, so DeoxIT and plugging and unplugging
various connectors will fix a large majority of 'problems'. Disuse is a problem also, as the minimal oxidation that
builds up on switches doesn't get scraped off unless they are rotated once in a while!

Anyway, it's a great radio, and IF it develops a problem that can't be fixed by the above there are plenty of people on
this list that are ready and willing to help.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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damico@... wrote:
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> I don't have the original manual, I downloaded the one from Internet and there is no mention of the delay. BTW, the
> S/N of my TR7 is 4531 (mid-July 1979).
>
> Thanks to all those who answered my question....
>
> 73,
>
>
> Michele

>
>

18327. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:05:06 UTC
From: Joe Pyles
Topic: 18316 Message: 18327

The difference that caused the delay in early
TR7s was U9004 a Monostable Multivibrator
originally was an MC14528 in later TR7s it was
changed to An MC14538 a faster Monostable Multivibrator.
This changed the delay on the up down buttons. In
the service manual even the last printing it was
still listed as an MC14528 but the later boards had an MC14538.

73, Joe KC9LAD

At 10:55 AM 1/26/2014, you wrote:
>
>
>Mine is 9616 and 66xx something. Perhaps THOSE
>are the 'broken' ones, and the _problem_ was fixed by the time ours
>was built!?!?!
>
>73, Garey - K4OAH
>Glen Allen, VA
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>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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><www.k4oah.com>
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>Chgypsy@... wrote:
> >
> >
> > k4oah@... writes:
> >
> > How come neither of mine -OR- Carl's have the delay??, Garey - K4OAH
> >
> > We could open up the discussion as to what
> serial number is involved. I was using # 7049
> > but can hook up # 1513 for a second look see. Carl WD8NHK
> >
> >
> >
>
>

18328. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:20:25 UTC
From: Garey Barrell
Topic: 18316 Message: 18328

Joe -

AHA! (again....) :-) It took 10-15 seconds to start??? YIKES. Or did it just wait for a power line spike to start
it up?!?! :-)

Interesting that they removed the note in the op manual yet didn't change the parts list in the sm......

Thanks!

and for Jim .....

"Thhhbbbbititt" (Also known as 'raspberry)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Joe Pyles wrote:
>
>
> The difference that caused the delay in early TR7s was U9004 a Monostable Multivibrator originally was an MC14528 in
> later TR7s it was changed to An MC14538 a faster Monostable Multivibrator.
> This changed the delay on the up down buttons. In the service manual even the last printing it was still listed as an
> MC14528 but the later boards had an MC14538.
>
> 73, Joe KC9LAD
>
>
>
> At 10:55 AM 1/26/2014, you wrote:
>>
>>
>> Mine is 9616 and 66xx something. Perhaps THOSE are the 'broken' ones, and the _problem_ was fixed by the time ours
>> was built!?!?!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com/> >
>>
>> Chgypsy@... wrote:
>> >
>> >
>> > k4oah@... writes:
>> >
>> > How come neither of mine -OR- Carl's have the delay??, Garey - K4OAH
>> >
>> > We could open up the discussion as to what serial number is involved. I was using #
7049
>> > but can hook up # 1513 for a second look see. Carl WD8NHK
>> >
>> >
>> >
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>
>
>

18329. Re: [DrakeRadio] RE: TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:22:55 UTC
From: Jim Shorney
Topic: 18304 Message: 18329

As Garey alluded to, welcome to the world of undocumented changes. I checked two PDF owner's manuals that I have, one for TR-7 and one for TR-7A, and both had the note about the delay.

I was amused by an anecdote a ham friend related to me once. He was browsing an online shop manual web site for automobiles. There were, of course, various revisions and service notes regarding the wiring diagrams. Under the heading for "Undocumented Changes" was the simple note: "You're Screwed". Or something to that effect. The actual language may have been a bit more vulgar, but I'll leave it at that.

There has been a fair amount of work done over the years by hams documenting such changes and revisions in our radios, but new information comes to light all the time. Thanks to you bringing this question up, Joe has added another data point to the collective knowledge. IIRC I asked this same question some years ago in an online forum and did not get any useful answers.

73

-Jim
NU0C

On 26 Jan 2014 09:16:45 -0800, damico@... wrote:

>I don't have the original manual, I downloaded the one from Internet and there is no mention of the delay. BTW, the S/N of my TR7 is 4531 (mid-July 1979).
>
>Thanks to all those who answered my question....

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18330. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:26:24 UTC
From: Jim Shorney
Topic: 18316 Message: 18330

I still think yours is broken. The delay was created by an engineer who got kickbacks from the switch company. The idea was for frustrated hams to wear out the switches faster by repeatedly pushing them during the poorly documented delay period, thus increasing service revenue. The manual note was a red herring, everone knows that real hams never read the manual.

73

-Jim
NU0C

On Sun, 26 Jan 2014 13:20:25 -0500, Garey Barrell wrote:

>and for Jim .....
>
>"Thhhbbbbititt" (Also known as 'raspberry)

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18331. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:46:39 UTC
From: Joe Pyles
Topic: 18304 Message: 18331

The strange thing is that in the very late TR7
and TR7A manual there is a note above the
description of The I and J buttons that states,
"Neither UP or DOWN frequency control is enabled
until after a preset delay time
of 15-20 seconds each time power is initiated to
the radio." The early manuals have no such note.

73, Joe KC9LAD

At 11:18 AM 1/26/2014, you wrote:
>
>
>AHA!!! No such note in my manual..... They got it fixed!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
> > As they say in the software business, that's
> not a bug, it's a feature. Mine
> > does this too, and for years I thought something was wrong but never looked
> > into it because it was only a minor
> annoyance. Only recently I stumbled upon a
> > note on page 3-2 of the Owners Manual for
> sections I & J, to the effect that
> > there is a 15-20 second powerup delay for the UP/DOWN buttons.
> >
> > Sometimes it's surprising what you find when you RTFM.
> >
> > 73
> >
> > -Jim
> > NU0C
> >
> > On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:
> >
> >> On 25 Jan 2014 23:31:55 -0800, you wrote:
> >>
> >>> my "brand new" TR7 shows a minor oddness:
> when I turn on the radio, the UP and DOWN

> buttons will not be operative, i.e. pressing
> them has no effect. After about 15 seconds from
> turn-on, they start working regularly... apart
> from that, everything else is absolutely ok.
> >> That's normal; there's a time delay, probably to make sure everything is
> >> locked.
> >>
> >>
>
>

18332. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:51:07 UTC
From: Garey Barrell
Topic: 18304 Message: 18332

Pure Drake!! :-)

Fix the problem, don't change the documentation, and ADD a note describing the problem to the manual!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Joe Pyles wrote:
>
>
> The strange thing is that in the very late TR7 and TR7A manual there is a note above the description of The I and J
> buttons that states, "Neither UP or DOWN frequency control is enabled until after a preset delay time
> of 15-20 seconds each time power is initiated to the radio." The early manuals have no such note.
>
> 73, Joe KC9LAD
>
>
> At 11:18 AM 1/26/2014, you wrote:
>>
>>
>> AHA!!! No such note in my manual..... They got it fixed!
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com/> >
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>> Jim Shorney wrote:
>> > As they say in the software business, that's not a bug, it's a feature. Mine
>> > does this too, and for years I thought something was wrong but never looked
>> > into it because it was only a minor annoyance. Only recently I stumbled upon a
>> > note on page 3-2 of the Owners Manual for sections I & J, to the effect that
>> > there is a 15-20 second powerup delay for the UP/DOWN buttons.
>> >
>> > Sometimes it's surprising what you find when you RTFM.
>> >

>> > 73
>> >
>> > -Jim
>> > NU0C
>> >
>> > On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:
>> >
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>> >>> my "brand new" TR7 shows a minor oddness: when I turn on the radio, the UP and DOWN buttons will not be
>> operative, i.e. pressing them has no effect. After about 15 seconds from turn-on, they start working regularly...
>> apart from that, everything else is absolutely ok.
>> >> That's normal; there's a time delay, probably to make sure everything is
>> >> locked.

18333. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:51:28 UTC
From: Jim Shorney
Topic: 18304 Message: 18333

Your manual is broken too....

-Jim

On Sun, 26 Jan 2014 11:18:27 -0500, Garey Barrell wrote:

>AHA!!! No such note in my manual....... They got it fixed!

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18334. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 18:58:59 UTC
From: Richard Knoppow
Topic: 18316 Message: 18334

----- Original Message -----
From: "Joe Pyles" <epyles@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, January 26, 2014 10:05 AM
Subject: Re: [DrakeRadio] TR7 - HI LO delay

The difference that caused the delay in early
TR7s was U9004 a Monostable Multivibrator
originally was an MC14528 in later TR7s it was
changed to An MC14538 a faster Monostable Multivibrator.
This changed the delay on the up down buttons. In
the service manual even the last printing it was
still listed as an MC14528 but the later boards had an
MC14538.

73, Joe KC9LAD

Can a 28 be replaced by a 38 with no other changes?
Would it even be worth doing since the delay is at most a
minor inconvenience?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18335. RE: TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 19:00:30 UTC
From: <damico@...>
Topic: 18304 Message: 18335

Garey, group,
I am not scared at all :-) I know this group well, I own also a 4C line and I have received great support from you guys in the past. I just acquired this TR7 last week from a ham friend of mine, for substantially a symbolic price, and it is in excellent electrical and cosmetic conditions... I was just wondering if this odd behaviour was a symptom of a fault, or was a bug/feature/etc. :-) Now I know and I am relaxed... thanks again, people !
BTW, I am waiting for the RV7 to arrive, then I will update the photo on QRZ.com with the new entry... :-)
73,

Michele IZ2EAS

18336. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 19:15:30 UTC
From: Jim Shorney
Topic: 18304 Message: 18336

Yep, that's the note that I found.

73

-Jim
NU0C

On Sun, 26 Jan 2014 13:46:39 -0500, Joe Pyles wrote:

>The strange thing is that in the very late TR7
>and TR7A manual there is a note above the
>description of The I and J buttons that states,
>"Neither UP or DOWN frequency control is enabled
>until after a preset delay time
>of 15-20 seconds each time power is initiated to
>the radio." The early manuals have no such note.
>
>73, Joe KC9LAD
>
>
>At 11:18 AM 1/26/2014, you wrote:
>>
>>
>>AHA!!! No such note in my manual..... They got it fixed!
>>
>>73, Garey - K4OAH
>>Glen Allen, VA
>>
>>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>and TR-4/C Service Supplement CDs
>><www.k4oah.com>
>>
>>Jim Shorney wrote:
>> > As they say in the software business, that's
>> not a bug, it's a feature. Mine
>> > does this too, and for years I thought something was wrong but never looked
>> > into it because it was only a minor
>> annoyance. Only recently I stumbled upon a
>> > note on page 3-2 of the Owners Manual for
>> sections I & J, to the effect that
>> > there is a 15-20 second powerup delay for the UP/DOWN buttons.
>> >
>> > Sometimes it's surprising what you find when you RTFM.
>> >
>> > 73
>> >

>> > -Jim
>> > NU0C
>> >
>> > On Sun, 26 Jan 2014 10:16:55 -0500, Gary Woods wrote:
>> >
>> >> On 25 Jan 2014 23:31:55 -0800, you wrote:
>> >>
>> >>> my "brand new" TR7 shows a minor oddness:
>> when I turn on the radio, the UP and DOWN
>> buttons will not be operative, i.e. pressing
>> them has no effect. After about 15 seconds from
>> turn-on, they start working regularly... apart
>> from that, everything else is absolutely ok.
>> >> That's normal; there's a time delay, probably to make sure everything is
>> >> locked.
>> >>
>> >>
>>
>>
>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18337. Re: [DrakeRadio] TR7 - minor oddness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 19:17:53 UTC
From: Jim Shorney
Topic: 18304 Message: 18337

Or, find a bug and redefine it as a feature while ignoring memos from engineering.

73

-Jim
NU0C

On Sun, 26 Jan 2014 13:51:07 -0500, Garey Barrell wrote:

>Pure Drake!! :-)
>
>Fix the problem, don't change the documentation, and ADD a note describing the problem to the manual!

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18338. Re: [DrakeRadio] TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 19:47:55 UTC
From: Joe Pyles
Topic: 18316 Message: 18338

That's how I found the difference, I noticed that
the later board had the 14538 and I had an early
board with a bad 14528 so i replaced it with a 14538 and the delay was gone.

73, Joe KC9LAD

At 01:58 PM 1/26/2014, you wrote:
>
>
>
>----- Original Message -----
>From: "Joe Pyles" <epyles@....com>
>To: <DrakeRadio@yahoogroups.com>
>Sent: Sunday, January 26, 2014 10:05 AM
>Subject: Re: [DrakeRadio] TR7 - HI LO delay
>
>The difference that caused the delay in early
>TR7s was U9004 a Monostable Multivibrator
>originally was an MC14528 in later TR7s it was
>changed to An MC14538 a faster Monostable Multivibrator.
>This changed the delay on the up down buttons. In
>the service manual even the last printing it was
>still listed as an MC14528 but the later boards had an
>MC14538.
>
>73, Joe KC9LAD
>
>Can a 28 be replaced by a 38 with no other changes?
>Would it even be worth doing since the delay is at most a
>minor inconvenience?
>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL
>dickburk@...
>
>

18339. Biias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 20:01:20 UTC
From: rf200655
Topic: 18339 Message: 18339

Garey

V55=23 V6=22.5

Thanks
Ray
KC4DYM

18340. Re: [DrakeRadio] New to the list

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 19:58:33 UTC
From: Marco B.
Topic: 18270 Message: 18340

some of my messages aren't getting through... try again

Dan, after 22 years of ownership, I have no intention of ever selling my Drake. Although it diminishes the value of the PS, I'd rather have that than harm the TR-4 from lack of not taking precautions. And having looked at the PS there is leakage on 2 of the caps.

I appreciate all the help I've been getting from the group. The kit will have to wait a little longer with the holiday bills being paid off as a priority.

It's great to be in this group.
Marco

On Sunday, January 26, 2014 12:12:35 PM, Joe - W7RKN <w7rkn.7@...> wrote:

Like Dan, I too had to mount the board on the end
side, due to the fact the transformer 'bolts' were on the wrong side.
(If I remember, I 'believe' I uploaded pics to the pictures
section) Yes, I had to drill 4 holes in the case to mount the board, but....I
don't worry about losing my PS and/or the radio!! I also have another kit
(ES4AC4) But haven't installed it yet.....when I decide to bring up the second
4B pair, I will rebuild its PS then.

Joe - W7RKN
----- Original Message -----
>From: Dan Galligan
>Subject: Re: [DrakeRadio] New to the list
>Marco,
>I am one of the few folks, who had difficulty with ONE of the Heathkit Shop sets. The setup is fine, and works well. My problem was that the shaft size, on the original transformer bolts, were too large for the Heathkit Shop's supplied standoffs. I committed blasphemy, by simply reversing the board, drilling four appropriately sized holes, in the end of the case, and installing it that way. It worked like a charm. But, it definitely diminishes the value of the power supply, because of modification.
>BTW, the nice thing is that the designer and maker of each, are members of this list, and if you have any difficulty, they are always willing to give good advice.
>
>

18341. Re: Biias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 20:34:37 UTC
From: rf200655
Topic: 18339 Message: 18341

Garey

No voltage on pin 3 no matter what - bias is set to 702 plate sreen 250v .
Thanks
73 Ray
KC$DYM
--- In DrakeRadio@yahoogroups.com, "rf200655" <crf2@...> wrote:
>
> Garey
>
> V55=23 V6=22.5
>
> Thanks
> Ray
> KC4DYM
>

18342. Re: [DrakeRadio] Re: Biias T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 20:54:39 UTC
From: Garey Barrell
Topic: 18339 Message: 18342

Ray -

OK. I assume the filaments were lit in V5 and V6?? Should've asked that a while back! If so, gotta be dead tubes.

Need to find the short on the Cathode line to the relay before installing new tubes.
Recheck front panel controls.
Should be in SEPARATE and SSB, GAIN at 0, XTALS 'Norm'. None of the others matter at this point. The bottom of R36
MUST be 'open' to ground. If not, check relay for bent contact(s), switches S1A (f&r), S2B (f) and S1B (r) for any
terminal shorting. Watch coax shields to make sure they're not touching another terminal than the one they're soldered to.

73, Garey - K4OAH
Glen Allen, VA

rf200655 wrote:
> Garey
>
> No voltage on pin 3 no matter what - bias is set to 702 plate sreen 250v .
> Thanks
> 73 Ray
> KC$DYM
> --- In DrakeRadio@yahoogroups.com, "rf200655" <crf2@...> wrote:
>> Garey
>>
>> V55=23 V6=22.5
>>
>> Thanks
>> Ray
>> KC4DYM
>>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

18343. TNX ! TR7 - HI LO delay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-26 22:11:20 UTC
From: Dieter Horst
Topic: 18316 Message: 18343

Now that's a new one for me, too. Thanks Joe!

My TR7 has the effect and I was always wondering why but too lazy to fix it.

But really it sounds like a bug sold as a feature by Drake... Anyway,
now I know what to do once I overcome my lazyness

73, Dieter DL5RDO

Am 26.01.2014 19:05, schrieb Joe Pyles:
>
> The difference that caused the delay in early TR7s was U9004 a
> Monostable Multivibrator originally was an MC14528 in later TR7s it
> was changed to An MC14538 a faster Monostable Multivibrator.
> This changed the delay on the up down buttons. In the service manual
> even the last printing it was still listed as an MC14528 but the later
> boards had an MC14538.
>
> 73, Joe KC9LAD
>
>
>
> At 10:55 AM 1/26/2014, you wrote:
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>>
>>
>> Mine is 9616 and 66xx something. Perhaps THOSE are the 'broken' ones,
>> and the _problem_ was fixed by the time ours
>> was built!?!?!
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>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com/> >
>>
>> Chgypsy@... wrote:
>> >
>> >
>> > k4oah@... writes:
>> >
>> > How come neither of mine -OR- Carl's have the delay??, Garey - K4OAH
>> >
>> > We could open up the discussion as to what serial number is
>> involved. I was using # 7049

>> > but can hook up # 1513 for a second look see. Carl WD8NHK
>> >
>> >
>> >
>>
>
>

18344. TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 01:35:48 UTC
From: Kris Merschrod
Topic: 17370 Message: 18344

The PTO was connected to board #1 as per Garey and Steve's help, One final check wiggling of tubes and then, THE SMOKE TEST!

No smoke, sort of weak audio, no action on the S meter, dialed up and down, heard good CW.

Dial calibration - no calibrating tone at the 100 marks - removed calibration crystal and de-oxed again. Action! then compared the dial end to end on 40 meters with the reception on the TR-4CW/rit. nice results so the PTO is direly in place and doing its job.

It is coming along but the weak audio and S-meter need attention.

One of these days the key down test will be in order, but first the reception.

That is the report on the TR-4C resustitation.

Kris KM2KM

18345. Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 03:19:48 UTC
From: Garey Barrell
Topic: 17370 Message: 18345

Kris -

Progress!! Do you have plenty of 'audio' and not much signal strength (S-Meter readings), or weak audio and lots of
S-Meter??

IF you haven't already, go through and check all the hardware mounted to the chassis for tightness. Include tube
sockets, terminal strips, shield panels, & PC board mounting 'feet'.

Suggestions...

If the former:

Check the overload bulb (+12) in the relay compartment, it's socket and surroundings. DeoxIT.

Exercise the slide switch on the left rear, it must be left in the 'forward' (XCVR) position. DeoxIT

DeoxIT the relay contacts, pulling a piece of good bond paper between them.

And ...

'Rock' all the tubes in their sockets, again with a bit of DeoxIT.

Check R192, if present, for value and condition.

Check value of R92 and DC voltage on Pin 2 of V17.

Check DC values of Q5.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Kris Merschrod wrote:
>
>
> The PTO was connected to board #1 as per Garey and Steve's help, One final check wiggling of tubes and then, THE
> SMOKE TEST!
> No smoke, sort of weak audio, no action on the S meter, dialed up and down, heard good CW.

> Dial calibration - no calibrating tone at the 100 marks - removed calibration crystal and de-oxed again. Action!
> then compared the dial end to end on 40 meters with the reception on the TR-4CW/rit. nice results so the PTO is
> direly in place and doing its job.
> It is coming along but the weak audio and S-meter need attention.
> One of these days the key down test will be in order, but first the reception.
> That is the report on the TR-4C resustitation.
> Kris KM2KM
>

18346. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 08:32:32 UTC
From: Steve VK2SJA
Topic: 18218 Message: 18346

> Gary -
> Not exactly.....
> Yes, the TR-4 PTO has the same FSK terminal as the T-4X. Works great for 170 Hz, or even 850 Hz shift. Thing is, it
> only shifts the frequency UP, and unlikely you could get much over 1 kHz.

Out of interest I tried this while my PTO was on the bench. Using red LED as vari-cap. I could pull up about 1200Hz for 5v.

It is easy enough to provide a constant 2.5 volts reference so that your RIT could swing up and down from a centre point but +/- 600Hz doesn't really make for as useful RIT.

You might be able to use it for Huff-Puff perhaps. But by all accounts the PTO is stable enough anyway.

Currently restoring my TR-4C. Second attempt at a smoke test in a couple of weeks at the current rate of progress.

73, Steve

18347. TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 11:30:31 UTC
From: <k4mt@...>
Topic: 18347 Message: 18347

I have been fighting this problem on my TR-7. I always get reports that I am 10 HZ low. Have adjusted all oscillators to specs and verified with two freq. counters. Is there something I have missed?

Gary K4MT

18348. AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 11:54:05 UTC
From: Dieter Horst
Topic: 18348 Message: 18348

You really mean 10 Hz ??
I wonder if I could tell the difference...
73 Dieter DL5RDO

Von Samsung-Tablet gesendet

-------- Ursprüngliche Nachricht --------
Von: k4mt@yahoo.com
Datum: 27.01.2014 12:30 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: [DrakeRadio] TR-7 TX/RX tracking

I have been fighting this problem on my TR-7. I always get reports that I am 10 HZ low. Have adjusted all oscillators to specs and verified with two freq. counters. Is there something I have missed?

Gary K4MT

18349. TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 11:56:29 UTC
From: Jose V. Gavila
Topic: 18349 Message: 18349

Hi all,

I am working on a TR-7 with a low power output problem. But it is somewhat weird: on CW, for instance, aon 40m band, you get barely 8W with a power supply current of 15A. The situation is similar for other bands, but power consumption and power output are different on each.

I have tried to directly connect the PA output to a dummy load and then, with less power supply consumption, I get more power (i.e. 50W at 7.1MHz, with a current of 12A)

So it seems to me like a problem on the LOW PASS filter assembly, but I have looked all that area and have not located any fault.

The RX/TX relay is also working properly. I have cleaned the contacts, just in case, but the problem remains the same.

Any hint on what could happen?

Best regards,

JOSE

--
73 EB5AGV - JOSE V. GAVILA - La Canyada - Valencia (SPAIN)
http://agvradio.com AGVradio
http://jvgavila.com Personal WEB

18350. Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 12:43:47 UTC
From: Steve Wedge
Topic: 17370 Message: 18350

It takes a lot of cleaning and fiddling, but most of these rigs were working the last time they were on I've got two TR-4's that will likely need this (one will also need most of the tubes from the left side, as it was a Pepsi Syndrome rig).

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Kris Merschrod
Sent: Sunday, January 26, 2014 8:35 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

The PTO was connected to board #1 as per Garey and Steve's help, One final check wiggling of tubes and then, THE SMOKE TEST!

No smoke, sort of weak audio, no action on the S meter, dialed up and down, heard good CW.

Dial calibration - no calibrating tone at the 100 marks - removed calibration crystal and de-oxed again. Action! then compared the dial end to end on 40 meters with the reception on the TR-4CW/rit. nice results so the PTO is direly in place and doing its job.

It is coming along but the weak audio and S-meter need attention.

One of these days the key down test will be in order, but first the reception.

That is the report on the TR-4C resustitation.

Kris KM2KM

[Non-text portions of this message have been removed]

18351. RE: AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 12:51:32 UTC
From: <k4mt@...>
Topic: 18348 Message: 18351

I am sorry bad typing it is 100 hz.

I have discovered something I need to test later. When I am using external VFO I see frequency drop by 100 hz on tx even when using the ext VFO to control TX/RX. When I switch to internal VFO this does not happen. I see the display change lower during TX while on ext VFO and verified with freq counter.

I guess I need to see why RV7 freq is changing on TX

18352. Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 12:51:55 UTC
From: geoffrey mendelson
Topic: 17370 Message: 18352

On 1/27/2014 2:43 PM, Steve Wedge wrote:
>
> It takes a lot of cleaning and fiddling, but most of these rigs were
> working the last time they were on I've got two TR-4's that will
> likely need this (one will also need most of the tubes from the left
> side, as it was a Pepsi Syndrome rig).
>
That term shows how old you are. Someone who was born around 1960 or
later would not know it. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18353. RE: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 14:22:36 UTC
From: wayne.smith
Topic: 17370 Message: 18353

ok, you got me now. a definition of "pepsi Syndrome" please. I'm thinking a spill?

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of geoffrey mendelson
Sent: Monday, January 27, 2014 6:52 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

On 1/27/2014 2:43 PM, Steve Wedge wrote:

It takes a lot of cleaning and fiddling, but most of these rigs were working the last time they were on I've got two TR-4's that will likely need this (one will also need most of the tubes from the left side, as it was a Pepsi Syndrome rig).

That term shows how old you are. Someone who was born around 1960 or later would not know it. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18354. Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 14:48:48 UTC
From: Gary Woods
Topic: 17370 Message: 18354

On Mon, 27 Jan 2014 08:22:36 -0600, you wrote:

>a definition of "pepsi Syndrome" please

Saturday Night Live did a skit (IIRC, around the time of the movie "China Syndrome") in which a nuclear power plant operator spilled a Pepsi into the control panel. Worked its way into the geek culture. We had a video switcher whose mainframe had a soda spilled into it by persons unknown. Spent the next few years chasing down weird symptoms in all the low-power analog circuitry.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

18355. Re: [DrakeRadio] TR-4C resusitation project Weak signal and destorted SSB Pie on face

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 14:48:36 UTC
From: Kris Merschrod
Topic: 17370 Message: 18355

Major pie on my face!

But before the pie - I did loosen and tighten all mechanical parts sockets etc. De-oxed the pins and sockets, also flexed the contacts and switches.

The pie - I had the slide switch on the left side in the RCVR position!!!!! Once that was correct, than you for the reminder Garey, the S-meter came to life and so did the signal strength.

The SSB was distorted but tweeking the C-130 took care of that - the manual really has nice Troiuble shooting as do Garey's CDs.

I even check the PTT and the relay does its "thing" no modulation tests yet.

So there are two of us (Steve VK2SIA) in this process - its a great hobby.

Kris KM2KM

18356. Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 14:54:14 UTC
From: Steve Wedge
Topic: 17370 Message: 18356

Yep - exactly.

Bought it from The Ham Shack for $75 after getting a post on this list that it was available. Cosmetically, on the outside, it's really nice. Someone obviously spilled a liquid on the left side, taking out most of the tubes on that side (they all cracked or shattered) - including the finals. There's some corrosion on the chassis, but the rig is repairable.

Google "Pepsi Syndrome" and you'll probably find the old SNL sketch with Dan Aykroyd, Larraine Newman and probably Gilda Radner. It was a spoof on "The China Syndrome".

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: wayne.smith
Sent: Monday, January 27, 2014 9:22 AM
To: DrakeRadio@yahoogroups.com
Subject: RE: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

ok, you got me now. a definition of "pepsi Syndrome" please. I'm thinking a spill?

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of geoffrey mendelson
Sent: Monday, January 27, 2014 6:52 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

On 1/27/2014 2:43 PM, Steve Wedge wrote:

It takes a lot of cleaning and fiddling, but most of these rigs were working the last time they were on I've got two TR-4's that will likely need this (one will also need most of the tubes from the left side, as it was a Pepsi Syndrome rig).

That term shows how old you are. Someone who was born around 1960 or later would not know it. :-)

Geoff. -- Geoffrey S. Mendelson 4X1GM/N3OWJJerusalem Israel.

18357. RE: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 15:04:30 UTC
From: Wayne Smith
Topic: 17370 Message: 18357

The memory just ain't what it used to be. Oh yeah, SNL did that while I was in college....

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Gary Woods
Sent: Monday, January 27, 2014 8:49 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C resusitation project SMOKE TEST AND DIAL CALIBRATION

On Mon, 27 Jan 2014 08:22:36 -0600, you wrote:

>a definition of "pepsi Syndrome" please

Saturday Night Live did a skit (IIRC, around the time of the movie "China Syndrome") in which a nuclear power plant operator spilled a Pepsi into the control panel. Worked its way into the geek culture. We had a video switcher whose mainframe had a soda spilled into it by persons unknown. Spent the next few years chasing down weird symptoms in all the low-power analog circuitry.

--
Gary Woods AKA K2AHC- PGP key on request, or at
home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18358. Re: [DrakeRadio] RIT for a TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 15:26:50 UTC
From: Garey Barrell
Topic: 18218 Message: 18358

Steve -

About what I expected..... +/- 600 Hz is pretty limited, but better than nothing I guess.

By the way, 'normal' use of the 'RTTY terminal' was a trimmer capacitor that was switched in and out by a diode, rather
than a varicap.

Don't forget the necessity of switching the RIT 'out' for transmit as part of the PTT or VOX operation!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
>> Gary -
>> Not exactly.....
>> Yes, the TR-4 PTO has the same FSK terminal as the T-4X. Works great for
> 170 Hz, or even 850 Hz shift. Thing is, it
>> only shifts the frequency UP, and unlikely you could get much over 1
> kHz.
>
>
> Out of interest I tried this while my PTO was on the bench. Using red LED
> as vari-cap. I could pull up about 1200Hz for 5v.
>
> It is easy enough to provide a constant 2.5 volts reference so that your
> RIT could swing up and down from a centre point but +/- 600Hz doesn't
> really make for as useful RIT.
>
> You might be able to use it for Huff-Puff perhaps. But by all accounts the
> PTO is stable enough anyway.
>
>
> Currently restoring my TR-4C. Second attempt at a smoke test in a couple
> of weeks at the current rate of progress.
>
>
> 73, Steve
>
>
>

18359. Re: [DrakeRadio] TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 15:32:05 UTC
From: Garey Barrell
Topic: 18349 Message: 18359

Jose -

Strange, I would have thought the same about the LP filter.

Perhaps a PA oscillation or spurious output? Direct to dummy would allow a 'non-fundamental' to contribute to the
total power seen, AND a better match. Maybe fire up the spectrum analyzer!! (Or grid dip meter!! :-))

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jose V. Gavila wrote:
> Hi all,
>
> I am working on a TR-7 with a low power output problem. But it is
> somewhat weird: on CW, for instance, aon 40m band, you get barely 8W
> with a power supply current of 15A. The situation is similar for other
> bands, but power consumption and power output are different on each.
>
> I have tried to directly connect the PA output to a dummy load and then,
> with less power supply consumption, I get more power (i.e. 50W at
> 7.1MHz, with a current of 12A)
>
> So it seems to me like a problem on the LOW PASS filter assembly, but I
> have looked all that area and have not located any fault.
>
> The RX/TX relay is also working properly. I have cleaned the contacts,
> just in case, but the problem remains the same.
>
> Any hint on what could happen?
>
> Best regards,
>
> JOSE
>

18360. Re: [DrakeRadio] TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 15:53:29 UTC
From: Jose V. Gavila
Topic: 18349 Message: 18360

Hello Garey,

Thanks for your answer!

> Strange, I would have thought the same about the LP filter.
>
> Perhaps a PA oscillation or spurious output? Direct to dummy would
> allow a 'non-fundamental' to contribute to the total power seen, AND
> a better match. Maybe fire up the spectrum analyzer!! (Or grid dip
> meter!! :-))
>
> 73, Garey - K4OAH Glen Allen, VA

Well, meanwhile I have done some further checks and perhaps you are right... I have used my RigExpert 200 antenna analyzer to check the low pass filters, injecting the signal on the RX/TX relay output, so they could be checked with the rig powered off. Well, all filters measured nicely!

So perhaps you are right and the PA is not generating a clean signal. I will do some checkings and will let you know what I find.

Regards,

JOSE

> Jose V. Gavila wrote:
>> Hi all,
>>
>> I am working on a TR-7 with a low power output problem. But it is
>> somewhat weird: on CW, for instance, aon 40m band, you get barely
>> 8W with a power supply current of 15A. The situation is similar
>> for other bands, but power consumption and power output are
>> different on each.
>>
>> I have tried to directly connect the PA output to a dummy load and
>> then, with less power supply consumption, I get more power (i.e.
>> 50W at 7.1MHz, with a current of 12A)
>>
>> So it seems to me like a problem on the LOW PASS filter assembly,
>> but I have looked all that area and have not located any fault.
>>
>> The RX/TX relay is also working properly. I have cleaned the
>> contacts, just in case, but the problem remains the same.
>>
>> Any hint on what could happen?
>>

>> Best regards,
>>
>> JOSE

--
73 EB5AGV - JOSE V. GAVILA - La Canyada - Valencia (SPAIN)
http://agvradio.com AGVradio
http://jvgavila.com Personal WEB

18361. Re: AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 16:21:33 UTC
From: Garey Barrell
Topic: 18348 Message: 18361

Check around the 'RIT Switching' circuitry on the Parent Board. The only thing I can think of that could shift the PTO
that much from receive to transmit would be the RIT circuitry, and the only obvious change is the 'source' of the RIT
voltage. The analog switches used are notorious for noise and voltage shifts.

Check the DC voltage applied to the RIT terminal on the side of the PTO when switching from R to T. If it is changing,
work your way back through the MC14016 area to see where the change is originating.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k4mt@... wrote:
>
>
> I am sorry bad typing it is 100 hz.
>
>
> I have discovered something I need to test later. When I am using external VFO I see frequency drop by 100 hz on tx
> even when using the ext VFO to control TX/RX. When I switch to internal VFO this does not happen. I see the display
> change lower during TX while on ext VFO and verified with freq counter.
>
>
> I guess I need to see why RV7 freq is changing on TX
>
>

18362. Re: AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 17:02:22 UTC
From: <k4mt@...>
Topic: 18348 Message: 18362

Thanks Garey:

I will do that. I find it only does it when I am using the RV7 ext VFO to control the radio. On internal VFO its fine. I connected my external DDS VFO to the radio and I do not have the problem. Maybe problem is in RV7 or voltage change to RV7. For now I will use the DDS VFO which is what I probably should use as its very accurate and rock stable.

Thanks

Gary K4MT

18363. Re: AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 17:06:57 UTC
From: Garey Barrell
Topic: 18348 Message: 18363

Gary -

OK. The RV-7 has its own voltage regulator, (Zener in the PTO,) so most likely a function of the RIT stuff. There's
PIN diode switching and the analog switches involved.

I'm betting you'll see the DC voltage on the RIT terminal (what used to the the RTTY terminal on the side of the PTO
just behind the gearbox) changing from R to T.

Let us know what you find!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k4mt@... wrote:
>
>
> Thanks Garey:
>
>
> I will do that. I find it only does it when I am using the RV7 ext VFO to control the radio. On internal VFO its
> fine. I connected my external DDS VFO to the radio and I do not have the problem. Maybe problem is in RV7 or voltage
> change to RV7. For now I will use the DDS VFO which is what I probably should use as its very accurate and rock stable.
>
>
> Thanks
>
>
> Gary K4MT
>
>
>
>

18364. Re: AW: [DrakeRadio] TR-7 TX/RX tracking

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 17:35:31 UTC
From: <k4mt@...>
Topic: 18348 Message: 18364

OK Garey. Thanks for your help. Its going to be freezing cold tomorrow so wont be able to go outside. I will get meter out and see whats up. If the RIT voltage is changing what would effect RV7 and not internal VFO. Guess I will have to dig into schematics.

That DDS VFO really works fine and I built it to allow me to do everything RV7 will do. It can do all the options of TX/RX Split etc.. I have been thinking of take PTO out of RV7 and put display for DDS under plastic front trim and make the RV7 a DDS VFO

Thanks,

Gary K4MT

18365. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 18:37:55 UTC
From: Garey Barrell
Topic: 18365 Message: 18365

Carl -

Well, I'm not a big believer in all the ESD stuff. I've been using 'ESD sensitive' stuff for probably 40 years (going
back to the 40673, at least,) that were 'ESD sensitive', with no provisions other than touching a grounded object before
handling a device. I also try to hold a grounded surface of a unit as I am installing a device. Other than that,
nothing. My solder station is a Weller TCP, usually with a 700 degree magnetic, grounded tip. Work surface is Formica
and/or cardboard sheet depending upon size of unit. So far at least, no fatalities. I suppose if I was working with a
$1000 part, or a $10,000 unit, I 'might' be a little more careful, but probably not.....

Of course I don't wear silk underwear.... Had line once that had lots of ESD 'type' failures. Turned out girls
wearing silk underwear and squirming on plastic chairs were zapping things!

So..... On your IC, yes, the leads are always 'splayed' a bit. I hold them by the package ends, and place each set of
leads on the Formica surface of the bench and 'roll' the package to bring them in evenly. Do this to both sides to
minimize the amount needed on each side. I have a plastic 'IC inserter' somewhere that you push the IC into that
straightens the pins, and then a push button on top to insert it into the board. I used it a time or two, but then went
back to my own process.

Not a recommendation, just an opinion.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
> Hi Garey,
> If you want to put any reply on the Drakelist that would be fine with me.
> Have my first ever 16 pin DIP removed from the DR7 board, ready to install a replacement.
> BTW couldn't afford a Hakko 808 at the moment HI HI but did borrow a 707, only tore up one pad, but the connection is
> on top..... got lucky. As far as original pins they were bent over but only on one side.
> Whats the secret to getting one whole row of pins into the holes? Pre bend the IC legs?

Using what. ESD and all
> that..... Have a large pair of plastic tongs to handle the chip itself.
> Thinking of inserting one row, then using two business cards (insulators) one on each side and gently squeeze for the
> second row but having all the pins go in parallel is a quandary.
> Suggestions please, Carl WD8NHK

18366. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 20:36:29 UTC
From: Robert Spooner
Topic: 18365 Message: 18366

Garey and all,

Back in the ‘70s, Digital Equipment Corp. did a study and found that even regular TTL logic mounted on PC boards could be damaged if antistatic procedures weren’t followed. After that, they established stringent requirements for all their field service techs for handling electronic equipment. Even if damage only occurs once in a while, given the extra troubleshooting time and parts expense, I think it is worthwhile taking the extra precautions.

73,
Bob AD3K

On Jan 27, 2014, at 1:37 PM, Garey Barrell <k4oah@...> wrote:

> Carl -
>
> Well, I'm not a big believer in all the ESD stuff. I've been using 'ESD sensitive' stuff for probably 40 years (going
> back to the 40673, at least,) that were 'ESD sensitive', with no provisions other than touching a grounded object before
> handling a device. I also try to hold a grounded surface of a unit as I am installing a device. Other than that,
> nothing. My solder station is a Weller TCP, usually with a 700 degree magnetic, grounded tip. Work surface is Formica
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>
> So..... On your IC, yes, the leads are always 'splayed' a bit. I hold them by the package ends, and place each set of
> leads on the Formica surface of the bench and 'roll' the package to bring them in evenly. Do this to both sides to
> minimize the amount needed on each side. I have a plastic 'IC inserter' somewhere that you push the IC into that
> straightens the pins, and then a push button on top to insert it into the board. I used it a time or two, but then went
> back to my own process.
>
> Not a recommendation, just an opinion.
>
> 73, Garey - K4OAH

> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Chgypsy@... wrote:
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> > If you want to put any reply on the Drakelist that would be fine with me.
> > Have my first ever 16 pin DIP removed from the DR7 board, ready to install a replacement.
> > BTW couldn't afford a Hakko 808 at the moment HI HI but did borrow a 707, only tore up one pad, but the connection is
> > on top..... got lucky. As far as original pins they were bent over but only on one side.
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> > that..... Have a large pair of plastic tongs to handle the chip itself.
> > Thinking of inserting one row, then using two business cards (insulators) one on each side and gently squeeze for the
> > second row but having all the pins go in parallel is a quandary.
> > Suggestions please, Carl WD8NHK
>
>
>

18367. New to group - Mystery board in TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 20:27:50 UTC
From: <wd5acp@...>
Topic: 18367 Message: 18367

Hello all - just picked up a TR-7, PS-7 and MS7 speaker a couple of days ago. The rig needed a little TLC after getting bounced around in shipping (the LED display was intermittent/dim and the power output was low) After some cleaning with DeOxit and AGC gain adjustments along with a little other tweaking, I'm back to stable display and full output power.

I also lucked out and picked up a N.O.S. Bogen MBS-510 microphone (in the box!) at the Jackson, MS hamfest yesterday that appears to be a great match to the TR-7 both acoustically and ascetically! Super bargain too.

The rig has the built-in NB and also the optional cooling fan installed. Upon pulling the covers I found what appears to be a home-brew or one-off version of an xtal-lock tacked under the main PCB. I looked on the web and couldn't find an exact duplicate of the board, and it has no markings (even the IC's have their designations wiped out) - Anyone have any idea? I'd love to find some documentation on this just in case.

Here's a link to a phone-photo showing the mystery board...

https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/407157542/lightbox/830318380#
https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/407157542/lightbox/830318380#

I think the TR-7 is a great rig - classic styling, tons of output, great audio reports, and a very nice PBT feature that I actually like more than the dual mode IF shift.width on the Kenwood (I think it is a little too clever for it's own good - it works, but is a bit funky). The Kenwood TS-590 will outperform the Drake under very poor conditions, but the difference is minimal and in most cases none at all. For digital modes the Kenwood of course takes advantage of the modern technology with the USB interface that makes it a perfect match for programs like HRD, but the TR-7 is an absolute joy to use for rag-chewing. It's a keeper.

Thanks

18368. Re: [DrakeRadio] New to group - Mystery board in TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 21:03:11 UTC
From: Chgypsy@...
Topic: 18367 Message: 18368

Think it might be this... Carl wd8nhk

http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7-Installing-XLock/TR7_Improvements.htm

wd5acp@... writes:

Upon pulling the covers I found what appears to be a home-brew or one-off version of an xtal-lock tacked under the main PCB. I looked on the web and couldn't find an exact duplicate of the board, and it has no markings (even the IC's have their designations wiped out) - Anyone ha ve any idea? I'd love to find some documentation on this just in case.

Here's a link to a phone-photo showing the mystery board...

https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/407157542/lightbox/830318380#

I

18369. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 21:03:53 UTC
From: Garey Barrell
Topic: 18365 Message: 18369

Bob -

I know that's the recommended procedure, and as I said before, this is NOT a recommendation, but my opinion. We've all
drawn a two inch spark off of a switch plate mounting (grounded) screw after merely walking across the carpeted floor in
socks! I'm sure that would do a 'number' on any unprotected semiconductor.

I always put one hand on the unit 'ground', and the other on the part in its static resistant package before handling
the part or putting the two together.

If I was working with ESD sensitive components all day long, I'd employ the mat and wrist strap process. In my
experience, it hasn't proved to warrant the time and further clutter. So Far! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Spooner wrote:
>
>
> Garey and all,
>
> Back in the ?70s, Digital Equipment Corp. did a study and found that even regular TTL logic mounted on PC boards could
> be damaged if antistatic procedures weren?t followed. After that, they established stringent requirements for all
> their field service techs for handling electronic equipment. Even if damage only occurs once in a while, given the
> extra troubleshooting time and parts expense, I think it is worthwhile taking the extra precautions.
>
> 73,
> Bob AD3K
>
> On Jan 27, 2014, at 1:37 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
>> Carl -
>>
>> Well, I'm not a big believer in all the ESD stuff. I've been using 'ESD sensitive' stuff for probably 40 years (going

>> back to the 40673, at least,) that were 'ESD sensitive', with no provisions other than touching a grounded object before
>> handling a device. I also try to hold a grounded surface of a unit as I am installing a device. Other than that,
>> nothing. My solder station is a Weller TCP, usually with a 700 degree magnetic, grounded tip. Work surface is Formica
>> and/or cardboard sheet depending upon size of unit. So far at least, no fatalities. I suppose if I was working with a
>> $1000 part, or a $10,000 unit, I 'might' be a little more careful, but probably not.....
>>
>> Of course I don't wear silk underwear.... Had line once that had lots of ESD 'type' failures. Turned out girls
>> wearing silk underwear and squirming on plastic chairs were zapping things!
>>
>> So..... On your IC, yes, the leads are always 'splayed' a bit. I hold them by the package ends, and place each set of
>> leads on the Formica surface of the bench and 'roll' the package to bring them in evenly. Do this to both sides to
>> minimize the amount needed on each side. I have a plastic 'IC inserter' somewhere that you push the IC into that
>> straightens the pins, and then a push button on top to insert it into the board. I used it a time or two, but then went
>> back to my own process.
>>
>> Not a recommendation, just an opinion.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com/>>
>>
>> Chgypsy@... <mailto:Chgypsy@...>wrote:
>> > Hi Garey,
>> > If you want to put any reply on the Drakelist that would be fine with me.
>> > Have my first ever 16 pin DIP removed from the DR7 board, ready to install a replacement.
>> > BTW couldn't afford a Hakko 808 at the moment HI HI but did borrow a 707, only tore up one pad, but the connection is
>> > on top..... got lucky. As far as original pins they were bent over but only on one side.
>> > Whats the secret to getting one whole row of pins into the holes? Pre bend the IC legs? Using what. ESD and all
>> > that..... Have a large pair of plastic tongs to handle the chip itself.
>> > Thinking of inserting one row, then using two business cards (insulators) one on each side and gently squeeze for the
>> > second row but having all the pins go in parallel is a quandary.
>> > Suggestions please, Carl WD8NHK

>>
>
>
>
>

18370. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 21:07:53 UTC
From: Chgypsy@...
Topic: 18365 Message: 18370

Hi Garey,
Well there is at least a partial success.
The IC whic has now been replaced was U9019 on the DR7. All was total blank...now I have all decimals. More diagnosis.
Original headache was my cause I had a VOM on pin 15 not pin 2. Carl
wd8nhk

18371. Re: [DrakeRadio] New to group - Mystery board in TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 21:18:06 UTC
From: Garey Barrell
Topic: 18367 Message: 18371

I don't recognize it, but I'd guess it's one of the earlier 'Huff-Puff' boards. It's not an "X-lock" recent version,
but might be a K4DPK (?) a considerably older version of the same idea.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wd5acp@... wrote:
>
>
> The rig has the built-in NB and also the optional cooling fan installed. Upon pulling the covers I found what appears
> to be a home-brew or one-off version of an xtal-lock tacked under the main PCB. I looked on the web and couldn't find
> an exact duplicate of the board, and it has no markings (even the IC's have their designations wiped out) - Anyone
> have any idea? I'd love to find some documentation on this just in case.
>
> Here's a link to a phone-photo showing the mystery board...
>
>
https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/407157542/lightbox/830318380#
>
>

18372. RE: New to group - Mystery board in TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 21:38:54 UTC
From: <wd5acp@...>
Topic: 18367 Message: 18372

I think we have a winner! Much thanks. I didn't know about K4DPK but it sure resembles the circuit board in the photo on his website (including be blacked-out IC designations).

http://home.comcast.net/~k4dpk/picture%20of%20stab.htm

My guess is that it is an earlier version of his board. Great to know!

Thanks for the quick reply.

18373. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-27 22:02:43 UTC
From: Garey Barrell
Topic: 18365 Message: 18373

Do you have the 'Gate Pulse' at Pin 1 of U9026.?? A scope is best, but if you don't have one an LED with suitable
resistor for 5 VDC will work in many cases. You may be able to see the slight 'flicker'. If you don't have a scope,
you may also want to consider a 'logic probe'.

<http://www.radio-electronics.com/info/t_and_m/logic-probes/logic-probe-basics.php>

<http://www.zen22142.zen.co.uk/Circuits/Testgear/lprobe.html>

Consider the operation of the counter to determine where the problem 'might' be.

You have a 500 kHz reference signal. This controls all measurement functions. From this reference, we develop a 'GATE'
pulse.

The input signal to be measured is always coming into the preamp stages and being divided by a series of decade
dividers, each with its own 'digit' of the display, resulting in the numbers just constantly 'running', sorta like the
country's 'Debt Clock'. The GATE pulse essentially 'opens' the count input for a specific time, and then closes. If
it's open for precisely 1 second, the counter will count as high as it can during that period and then display it. This
gives an accuracy of 1 Hz. If the GATE is only open for 0.1 second, it will read the same number, just with the decimal
point one step to the left, or 'tens of Hz'.

There are two key signals to start. Use your LED on Pin 4 of U9029 and Pin 1 of U9031. It should be about half
brightness (square wave). If full brightness or no light, trace back.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
>
>
> Hi Garey,
> Well there is at least a partial success.
> The IC whic has now been replaced was U9019 on the DR7. All was total blank...now I have all decimals. More diagnosis.
> Original headache was my cause I had a VOM on pin 15 not pin 2. Carl wd8nhk

>
>
>

18374. Ganged 500k Potentiometer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 02:44:08 UTC
From: L L bahr
Topic: 18230 Message: 18374

My Drake TR-4C is in need of a dual ganged 500k potentiometer which is used for the XMTR GAIN. Is there anyone on here with a new one, used one, or a source at which I may be able to obtain one? I'd appreciate hearing from you if you can help.

Thanks,

Lee, w0vt

18375. Re: [DrakeRadio] Ganged 500k Potentiometer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 02:50:07 UTC
From: John Lawrence
Topic: 18230 Message: 18375

I would look at Mouser, MCM Electronics or Newark. All Electronics is surplus electronics, but somes times you get lucky with what they have in stock.
NE3E

On Mon, Jan 27, 2014 at 9:44 PM, L L bahr <pulsarxp@embarqmail.com> wrote:

>
>
> My Drake TR-4C is in need of a dual ganged 500k potentiometer which is
> used for the XMTR GAIN. Is there anyone on here with a new one, used one,
> or a source at which I may be able to obtain one? I'd appreciate hearing
> from you if you can help.
>
>
>
> Thanks,
>
>
>
> Lee, w0vt
>
>
>

--
John

18376. TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 03:32:14 UTC
From: Steve VK2SJA
Topic: 18230 Message: 18376

Hi all,

Help!

Like the fool I am I pulled all the crystals from my TR-4C prior to major clean and didn't document which order they were in. After cleaning most of the crystal chassis markings have disappeared. I can see 43.6 marked closest to the LSB/USB crystal filters but none of the other markings are easily readable.

Can someone throw me a life-line and save me the trouble of reverse engineering the bandswitch just to work out where they all belong.

I do have the owners manual and Garey's service CD but can't find this information in either. No doubt because the chassis is marked so you don't need it. Doh!

Thanks!

73, Steve
VK2SJA

18377. Re: [DrakeRadio] TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 03:57:34 UTC
From: Garey Barrell
Topic: 18230 Message: 18377

Steve -

Easy..... The go in order of increasing frequency starting with 21.5 closest to the chassis side.

21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi all,
>
> Help!
>
> Like the fool I am I pulled all the crystals from my TR-4C prior to major
> clean and didn't document which order they were in. After cleaning most of
> the crystal chassis markings have disappeared. I can see 43.6 marked
> closest to the LSB/USB crystal filters but none of the other markings are
> easily readable.
>
> Can someone throw me a life-line and save me the trouble of reverse
> engineering the bandswitch just to work out where they all belong.
>
> I do have the owners manual and Garey's service CD but can't find this
> information in either. No doubt because the chassis is marked so you don't
> need it. Doh!
>
> Thanks!
>
> 73, Steve
> VK2SJA
>
>
>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>

>
>
>

18378. Re: [DrakeRadio] TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 04:34:52 UTC
From: Bernie
Topic: 18230 Message: 18378

Garey....you have so much knowledge in that brain of yours, at immediate command it is downright scarey!
If only every iota of that knowledge would stay with us. Thank you for all you do for this group...73

Bernie in ND
WDØGMD

----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Monday, January 27, 2014 9:57 PM
Subject: Re: [DrakeRadio] TR-4C crystal bank order

Steve -

Easy..... The go in order of increasing frequency starting with 21.5 closest to the chassis side.

21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi all,
>
> Help!
>
> Like the fool I am I pulled all the crystals from my TR-4C prior to major
> clean and didn't document which order they were in. After cleaning most of
> the crystal chassis markings have disappeared. I can see 43.6 marked
> closest to the LSB/USB crystal filters but none of the other markings are
> easily readable.
>
> Can someone throw me a life-line and save me the trouble of reverse
> engineering the bandswitch just to work out where they all belong.
>
> I do have the owners manual and Garey's service CD but can't find this
> information in either. No doubt because the chassis is marked so you don't
> need it. Doh!
>
> Thanks!

>
> 73, Steve
> VK2SJA
>
>
>
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> Yahoo Groups Links
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18379. Re: [DrakeRadio] TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 05:09:49 UTC
From: Steve VK2SJA
Topic: 18230 Message: 18379

Many thanks Garey!

It would be great if this is the only mistake I make during this restoration. Probably won't be though ;-)

Slowly rebuilding her after fairly major strip and clean. A few new replacement parts going in at the same time. Hayseed multi-cap kit, blue LED lighting, new rubber drive bush for the PTO etc, etc.

She is really starting to sparkle.

I think I need a felt washer to stop the front dial from rubbing against the dial marker perspex window.

BTW does anyone know what stops the two clear dial plates from rubbing against each-over? Is it just those two tiny plastic nibs that protrude in front of the rear most dial plate where the rear dial plate is attached to a plastic cog? Or perhaps my assembly is missing a spacer/washer between the dial plates?

I completely rebuilt the PTO. Very pleased with result. I'll swear someone used some sort of axle grease up front. Black sticky grease all over everything. Yuck!!

73, Steve.
VK2SJA

> Steve -
>
> Easy..... The go in order of increasing frequency starting with 21.5
> closest to the chassis side.
>
> 21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

18380. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 05:13:20 UTC
From: Jim Shorney
Topic: 18365 Message: 18380

I worked at a computer shop for 12 years and can count on one hand the number of times I used a strap. It was easy enough to lay a bare arm acoss an exposed metal area on the case before reaching inside with the other hand. That, and reasonable handling precautions with the parts/boards (i.e., don't walk across carpet, lock the cat away, etc.) seemed to be sufficient. I would often use a large ESD bag laid on the workbench as a "mat" when working on a board. These days I am required to use a strap and mat at work. I can't count how many times that strap has dragged something off the bench, or caught on something and snapped me in a sensitive spot. But it is what it is...

73

-Jim

On Mon, 27 Jan 2014 16:03:53 -0500, Garey Barrell wrote:

>I always put one hand on the unit 'ground', and the other on the part in its static resistant package before handling
>the part or putting the two together.
>
>If I was working with ESD sensitive components all day long, I'd employ the mat and wrist strap process. In my
>experience, it hasn't proved to warrant the time and further clutter. So Far! :-)

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18381. Re: [DrakeRadio] TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 05:24:22 UTC
From: Jim Shorney
Topic: 18349 Message: 18381

Interesting conversation. It has been observed that some TR-7 PAs have a tendency to oscillate in the 40-Meter segment when connected to a reactive load. The root cause has not been uncovered yet, and the workaround solution seems to less predriver gain. Adjust the PO to 100 watts via the service manual procedure for adjusting predriver gan and ALC level. A less than ideal solution, so investigation is ongoing. A PIN diode attenuator add-in that has been used by some ops to level out the drive requirements across the spectrum also seems to help with this.

I had one case where leaky driver transistors caused strange power output anomalies.

An excellent writeup on the TR-7 PA deck can be found here:

http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_Amp_Repair/TR7-Amp.htm

The wires connecting the PA deck are long enough to lift it out and lay it on top the radio to work on it. Very handy. Someone was thinking when they did that design.

73

-Jim
NU0C

On Mon, 27 Jan 2014 10:32:05 -0500, Garey Barrell wrote:

>Jose -
>
>Strange, I would have thought the same about the LP filter.
>
>Perhaps a PA oscillation or spurious output? Direct to dummy would allow a 'non-fundamental' to contribute to the
>total power seen, AND a better match. Maybe fire up the spectrum analyzer!! (Or grid dip meter!! :-))
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jose V. Gavila wrote:
>> Hi all,
>>
>> I am working on a TR-7 with a low power output problem. But it is

>> somewhat weird: on CW, for instance, aon 40m band, you get barely 8W
>> with a power supply current of 15A. The situation is similar for other
>> bands, but power consumption and power output are different on each.
>>
>> I have tried to directly connect the PA output to a dummy load and then,
>> with less power supply consumption, I get more power (i.e. 50W at
>> 7.1MHz, with a current of 12A)
>>
>> So it seems to me like a problem on the LOW PASS filter assembly, but I
>> have looked all that area and have not located any fault.
>>
>> The RX/TX relay is also working properly. I have cleaned the contacts,
>> just in case, but the problem remains the same.
>>
>> Any hint on what could happen?
>>
>> Best regards,
>>
>> JOSE
>>
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18382. Re: [DrakeRadio] TR7-DR7 IC ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 05:48:18 UTC
From: K5MYJ
Topic: 18365 Message: 18382

Twenty years ago we put the strap on our ankle if it was required.

But in San Jose we never had a static problem. Except the women were not allows to wear nylon underwear!

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Jim Shorney
To: DrakeRadio@yahoogroups.com
Sent: Monday, January 27, 2014 9:13 PM
Subject: Re: [DrakeRadio] TR7-DR7 IC ?

I worked at a computer shop for 12 years and can count on one hand the number of times I used a strap. It was easy enough to lay a bare arm acoss an exposed metal area on the case before reaching inside with the other hand. That, and reasonable handling precautions with the parts/boards (i.e., don't walk across carpet, lock the cat away, etc.) seemed to be sufficient. I would often use a large ESD bag laid on the workbench as a "mat" when working on a board. These days I am required to use a strap and mat at work. I can't count how many times that strap has dragged something off the bench, or caught on something and snapped me in a sensitive spot. But it is what it is...

73

-Jim

On Mon, 27 Jan 2014 16:03:53 -0500, Garey Barrell wrote:

>I always put one hand on the unit 'ground', and the other on the part in its static resistant package before handling
>the part or putting the two together.
>
>If I was working with ESD sensitive components all day long, I'd employ the mat and wrist strap process. In my
>experience, it hasn't proved to warrant the time and further clutter. So Far! :-)

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18383. T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 12:38:11 UTC
From: <dcoffman@...>
Topic: 18383 Message: 18383

I am trying to align a T-4XC, section 5-9 of the manual, Carrier Osc, Filter Match and Balanced Modulator. I am unable to derive any plate current, above resting current, with any of the adjustments described in the manual.

What I have done is loaded up the T-4XC into a dummy load and then attached an R-4C to the T-4XC with only the receive antenna connection. I then shorted the mic jack to ground and I get a S8 signal on the receiver. I rotated the carrier balance control CCW, but there is no stop at full CCW so I moved it to obtain an S meter maximum on the receiver around 20 over 9. I tuned T14, T2 and T3 for maximum S meter level. I then re-balanced the system by turning the Carrier balance to bring the receiver's S meter to the lowest value I could obtain I then adjusted C-17 to reduce the level further. I am able to reduce the signal to about S5 on the attached R-4C. I removed the short and retuned the radio for maximum output, reduced output to about 20 watts and adjusted C6 (trimmer on the underside accessible from a hole in the back panel) so that the output is exactly the same on both upper and lower sideband.

The problem that I am having is that the resultant received audio, at my local Elmer's receiver, is extremely tinny or pinched. He explains that it sounds very pinched like I am out of the filter's pass band. I am using a D104 microphone that works quite well with my TR-4Cw. I do not have this audio issue using this mic on the TR-4.

Am I anywhere close to adjusting the transmitter properly? C17 is not mentioned in the manual for this adjustment, is this to be adjusted? I need to verify that C6 is the trimmer accessible from the back panel of the rig underneath the and to the right of the carrier balance. Should I be able to null the transmitter farther that I did?

Thanks,

Doug - N9XTF

18384. T-4XB PTT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 12:04:28 UTC
From: <guidoted@...>
Topic: 18384 Message: 18384

It looks like the PTT input of T-4XB that I've restored has a very high impedance: I've measured an open voltage of about -5V and a short circuit current of about -1.5uA (microamps), which means more than 3.3MOHM and makes that input sensitive to noise.
It is normal and correct or I have to find some failure?
Thanks and 73 de Guido, ik2bcp

18385. Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 14:48:06 UTC
From: Garey Barrell
Topic: 18383 Message: 18385

Doug -

The problem with Section 5-9 of the manual is that it was originally written for the T-4X, which had considerably wider
filter skirts, (4-pole vs the 8-pole of the B and C versions,) and therefore you could unbalance the BAL MIX and get
drive to the PA.

Your work-around is fine, and is what I have used for many years. Just be sure you disconnect the receiver before
hitting the key in CW or TUNE!!

Two possibilities on your 'tinny' audio. Get your friend to switch sidebands with you and see how the other sideband
sounds to him. If it is very muddled and bassy, the oscillator is off frequency. If the other sideband sounds good,
then you may have a bad filter. Again, the procedure worked a lot better on the T-4X. The C filters are so much
steeper that the 'sweet spot' between them has a pretty wide 'null' area, AND the skirts are so steep that a small CAR
OSC frequency change can make a big difference. If you have or have access to a counter, the CAR OSC should be VERY
close to 5.645.000 MHz. If you have a modern transceiver with general coverage receiver, you can just listen to the CAR
OSC to verify the frequency.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
> I am trying to align a T-4XC, section 5-9 of the manual, Carrier Osc, Filter Match and Balanced Modulator. I am
> unable to derive any plate current, above resting current, with any of the adjustments described in the manual.
>
>
> What I have done is loaded up the T-4XC into a dummy load and then attached an R-4C to the T-4XC with only the receive
> antenna connection. I then shorted the mic jack to ground and I get a S8 signal on the

receiver. I rotated the
> carrier balance control CCW, but there is no stop at full CCW so I moved it to obtain an S meter maximum on the
> receiver around 20 over 9. I tuned T14, T2 and T3 for maximum S meter level. I then re-balanced the system by turning
> the Carrier balance to bring the receiver's S meter to the lowest value I could obtain I then adjusted C-17 to reduce
> the level further. I am able to reduce the signal to about S5 on the attached R-4C. I removed the short and retuned
> the radio for maximum output, reduced output to about 20 watts and adjusted C6 (trimmer on the underside accessible
> from a hole in the back panel) so that the output is exactly the same on both upper and lower sideband.
>
>
> The problem that I am having is that the resultant received audio, at my local Elmer's receiver, is extremely tinny or
> pinched. He explains that it sounds very pinched like I am out of the filter's pass band. I am using a D104
> microphone that works quite well with my TR-4Cw. I do not have this audio issue using this mic on the TR-4.
>
>
> Am I anywhere close to adjusting the transmitter properly? C17 is not mentioned in the manual for this adjustment, is
> this to be adjusted? I need to verify that C6 is the trimmer accessible from the back panel of the rig underneath the
> and to the right of the carrier balance. Should I be able to null the transmitter farther that I did?
>
>
> Thanks,
>
>
> Doug - N9XTF
>
>
>
>

18386. Re: [DrakeRadio] TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 14:50:45 UTC
From: Garey Barrell
Topic: 18230 Message: 18386

Bernie -

<blush>..... :-) One of the (few) advantages of being old and having at least part of your memory still active! Just
don't ask what I had for lunch yesterday!

Thank you.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bernie wrote:
>
>
> Garey....you have so much knowledge in that brain of yours, at immediate command it is downright scarey!
> If only every iota of that knowledge would stay with us. Thank you for all you do for this group...73
> Bernie in ND
> WD?GMD
>
> ----- Original Message -----
> *From:* Garey Barrell <mailto:k4oah@...>
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Sent:* Monday, January 27, 2014 9:57 PM
> *Subject:* Re: [DrakeRadio] TR-4C crystal bank order
>
> Steve -
>
> Easy..... The go in order of increasing frequency starting with 21.5 closest to the chassis side.
>
> 21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Steve VK2SJA wrote:

> > Hi all,
> >
> > Help!
> >
> > Like the fool I am I pulled all the crystals from my TR-4C prior to major
> > clean and didn't document which order they were in. After cleaning most of
> > the crystal chassis markings have disappeared. I can see 43.6 marked
> > closest to the LSB/USB crystal filters but none of the other markings are
> > easily readable.
> >
> > Can someone throw me a life-line and save me the trouble of reverse
> > engineering the bandswitch just to work out where they all belong.
> >
> > I do have the owners manual and Garey's service CD but can't find this
> > information in either. No doubt because the chassis is marked so you don't
> > need it. Doh!
> >
> > Thanks!
> >
> > 73, Steve
> > VK2SJA
> >
>

18387. Re: [DrakeRadio] TR-4C crystal bank order

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 15:03:36 UTC
From: Garey Barrell
Topic: 18230 Message: 18387

Steve -

The plates are usually slightly warped, and there isn't much clearance between them. I would love to find an
'un-molested' PTO and document the exact order of washers, shims and plates on the front of the gearbox. Unfortunately,
knowing Drake, I could probably find five different arrangements!! :-)

Some have put a tiny bit of felt between the plates at the top and bottom of the discs, fastened to the chassis out of
sight. I've never had a pair that actually rubbed, but they're out there... Others have used heat and pressure to
flatten warped plates, similar to what we used to do with vinyl phono records. A couple of pieces of plate glass, a
weight and 150 degrees or so oven. Obviously easy to overdo the temperature, and I don't KNOW what the limit is. I
think I'd start with a couple of hours at about 125 degrees, and if not flat then increase temperature about 25 degrees
at a time. Don't forget to leave time for the heat to 'soak' the entire 'sandwich'. Then let cool completely under
pressure.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Many thanks Garey!
>
> It would be great if this is the only mistake I make during this
> restoration. Probably won't be though ;-)
>
> Slowly rebuilding her after fairly major strip and clean. A few new
> replacement parts going in at the same time. Hayseed multi-cap kit, blue
> LED lighting, new rubber drive bush for the PTO etc, etc.
>
> She is really starting to sparkle.
>
> I think I need a felt washer to stop the front dial from rubbing against
> the dial marker perspex window.
>
> BTW does anyone know what stops the two clear dial plates from rubbing
> against each-over? Is it just those two tiny plastic nibs that protrude in

> front of the rear most dial plate where the rear dial plate is attached to
> a plastic cog? Or perhaps my assembly is missing a spacer/washer between
> the dial plates?
>
> I completely rebuilt the PTO. Very pleased with result. I'll swear someone
> used some sort of axle grease up front. Black sticky grease all over
> everything. Yuck!!
>
> 73, Steve.
> VK2SJA
>
>
>> Steve -
>>
>> Easy..... The go in order of increasing frequency starting with 21.5
>> closest to the chassis side.
>>
>> 21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> <www.k4oah.com>
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18388. RE: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 15:05:52 UTC
From: Doug Coffman
Topic: 18383 Message: 18388

Garey,

We switched between LSB and USB and both sounded the same. So I am not sure if this leads to a 12AX7 issue or possibly a capacitor issue somewhere.

Should I have adjusted C17 in this procedure? It was not mentioned in the alignment procedure. I could not null the receiver S-Meter below 5 or so with the receiver directly connected to the transmitter via the receiver antenna connection. This was the only jumper connected. Does this sound about right?

Is C6 in fact the trimmer accessible from the back of the radio on the lower right? I followed the schematic and am somewhat certain that I had the correct one.

I am new to the twins, as long as the receiver mute line is connected between the twins, there is no risk of damage to the receiver, correct?

Thanks for all you help! I will be ordering the discs for this radio set shortly. The TR-4 series was a wealth of help.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Tuesday, January 28, 2014 9:48 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Doug -

The problem with Section 5-9 of the manual is that it was originally written for the T-4X, which had considerably wider
filter skirts, (4-pole vs the 8-pole of the B and C versions,) and therefore you could unbalance the BAL MIX and get
drive to the PA.

Your work-around is fine, and is what I have used for many years. Just be sure you disconnect the receiver before
hitting the key in CW or TUNE!!

Two possibilities on your 'tinny' audio. Get your friend to switch sidebands with you and see how the other sideband
sounds to him. If it is very muddled and bassy, the oscillator is off frequency. If the other sideband sounds good,
then you may have a bad filter. Again, the procedure worked a lot better on the T-4X. The C filters are so much
steeper that the 'sweet spot' between them has a pretty wide 'null' area, AND the skirts

are so steep that a small CAR
OSC frequency change can make a big difference. If you have or have access to a counter, the CAR OSC should be VERY
close to 5.645.000 MHz. If you have a modern transceiver with general coverage receiver, you can just listen to the CAR
OSC to verify the frequency.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

dcoffman@... <mailto:dcoffman@...> wrote:
>
>
> I am trying to align a T-4XC, section 5-9 of the manual, Carrier Osc, Filter Match and Balanced Modulator. I am
> unable to derive any plate current, above resting current, with any of the adjustments described in the manual.
>
>
> What I have done is loaded up the T-4XC into a dummy load and then attached an R-4C to the T-4XC with only the receive
> antenna connection. I then shorted the mic jack to ground and I get a S8 signal on the receiver. I rotated the
> carrier balance control CCW, but there is no stop at full CCW so I moved it to obtain an S meter maximum on the
> receiver around 20 over 9. I tuned T14, T2 and T3 for maximum S meter level. I then re-balanced the system by turning
> the Carrier balance to bring the receiver's S meter to the lowest value I could obtain I then adjusted C-17 to reduce
> the level further. I am able to reduce the signal to about S5 on the attached R-4C. I removed the short and retuned
> the radio for maximum output, reduced output to about 20 watts and adjusted C6 (trimmer on the underside accessible
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> Am I anywhere close to adjusting the transmitter properly? C17 is not mentioned in the manual for this adjustment, is
> this to be adjusted? I need to verify that C6 is the trimmer accessible from the back

panel of the rig underneath the
> and to the right of the carrier balance. Should I be able to null the transmitter farther that I did?
>
>
> Thanks,
>
>
> Doug - N9XTF
>
>
>
>

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18389. Re: [DrakeRadio] TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 15:21:51 UTC
From: Garey Barrell
Topic: 18349 Message: 18389

Jim -

Good point..... I've seen more than a few that were prone to oscillation of some sort, particularly on the 40M band. The
service info recommends against moving that predriver pot, implying that damage of some sort (inferred to be to the pot
itself) would result. I wonder if instead there is some 'sweet spot' in those early amps that was critical to stable
operation.

Floyd's article you referenced is the best overall reference. The PIN diode attenuator is perhaps slightly overkill, but
certainly not a bad idea.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> Interesting conversation. It has been observed that some TR-7 PAs have a
> tendency to oscillate in the 40-Meter segment when connected to a reactive
> load. The root cause has not been uncovered yet, and the workaround solution
> seems to less predriver gain. Adjust the PO to 100 watts via the service manual
> procedure for adjusting predriver gan and ALC level. A less than ideal
> solution, so investigation is ongoing. A PIN diode attenuator add-in that has
> been used by some ops to level out the drive requirements across the spectrum
> also seems to help with this.
>
> I had one case where leaky driver transistors caused strange power output
> anomalies.
>
> An excellent writeup on the TR-7 PA deck can be found here:
>
> http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_Amp_Repair/TR7-Amp.htm
>
> The wires connecting the PA deck are long enough to lift it out and lay it on
> top the radio to work on it. Very handy. Someone was thinking when they did
> that design.
>
> 73
>
> -Jim
> NU0C

>
>
> On Mon, 27 Jan 2014 10:32:05 -0500, Garey Barrell wrote:
>
>> Jose -
>>
>> Strange, I would have thought the same about the LP filter.
>>
>> Perhaps a PA oscillation or spurious output? Direct to dummy would allow a
'non-fundamental' to contribute to the
>> total power seen, AND a better match. Maybe fire up the spectrum analyzer!! (Or grid dip
meter!! :-))
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Jose V. Gavila wrote:
>>> Hi all,
>>>
>>> I am working on a TR-7 with a low power output problem. But it is
>>> somewhat weird: on CW, for instance, aon 40m band, you get barely 8W
>>> with a power supply current of 15A. The situation is similar for other
>>> bands, but power consumption and power output are different on each.
>>>
>>> I have tried to directly connect the PA output to a dummy load and then,
>>> with less power supply consumption, I get more power (i.e. 50W at
>>> 7.1MHz, with a current of 12A)
>>>
>>> So it seems to me like a problem on the LOW PASS filter assembly, but I
>>> have looked all that area and have not located any fault.
>>>
>>> The RX/TX relay is also working properly. I have cleaned the contacts,
>>> just in case, but the problem remains the same.
>>>
>>> Any hint on what could happen?
>>>
>>> Best regards,
>>>
>>> JOSE
>>>
>>
> --
> ?There?s something out of place ? let?s go and poke it with a stick.? ? The Doctor,
"Amy?s Choice"
>
>

>
>
> ---
>
> Yahoo Groups Links
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18390. Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 17:44:02 UTC
From: Garey Barrell
Topic: 18383 Message: 18390

Doug -

CAR BAL and C17, both on top of the chassis in the right rear corner, should be adjusted alternately for minimum signal.
Tune up the transmitter on 40M (or other, lower band,) into your antenna. Set GAIN to minimum, and FUNCTION to SSB.
Disconnect any microphone. CONFIRM that the GAIN control is at minimum and short the PTT to ground. The transmitter
should show idle current only, 70 mA.

CAUTION With the receiver connected as follows, it is subject to damage if the transmitter GAIN control is
increased at all. STAY in SSB.

With your receiver ANT jack connected to the OUTPUT of the T-4XC, tune in the carrier signal. Set the receiver AVC to
'FAST'. Make the adjustments in Section 5-9, para c., except only adjust R21 enough to hear a good signal in the
receiver. Then peak T14, T2 and T3 for maximum signal. Para d. should read "Adjust C6 for equal S-Meter readings on
both sidebands." Then alternate adjustment of CAR BAL and C17 should reduce that signal into the noise level.

The MUTE function of the receiver does NOT protect it from anything. It merely cuts off the IF stages. You can listen
to your signal by switching the FUNCTION switch to ON with the receiver connected normally to the 'RCVR ANT' jack on the
transmitter, with no damage to the receiver.

Yes, that is C6 on the rear panel.

If BOTH sidebands are still 'tinny' after this adjustment, you may have a problem in the mic stages, V9a and b.
Capacitor C102, (1 uF,) connected to Pin 3 of V9b would be my first suspect.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug Coffman wrote:
>
>
> Garey,

>
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> possibly a capacitor issue somewhere.
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> Should I have adjusted C17 in this procedure? It was not mentioned in the alignment procedure. I could not null the
> receiver S-Meter below 5 or so with the receiver directly connected to the transmitter via the receiver antenna
> connection. This was the only jumper connected. Does this sound about right?
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> Is C6 in fact the trimmer accessible from the back of the radio on the lower right? I followed the schematic and am
> somewhat certain that I had the correct one.
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> I am new to the twins, as long as the receiver mute line is connected between the twins, there is no risk of damage to
> the receiver, correct?
>
> Thanks for all you help! I will be ordering the discs for this radio set shortly. The TR-4 series was a wealth of help.
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Tuesday, January 28, 2014 9:48 AM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator
>
> Doug -
>
> The problem with Section 5-9 of the manual is that it was originally written for the T-4X, which had considerably wider
> filter skirts, (4-pole vs the 8-pole of the B and C versions,) and therefore you could unbalance the BAL MIX and get
> drive to the PA.
>
> Your work-around is fine, and is what I have used for many years. Just be sure you disconnect the receiver before
> hitting the key in CW or TUNE!!
>
> Two possibilities on your 'tinny' audio. Get your friend to switch sidebands with you and see how the other sideband
> sounds to him. If it is very muddled and bassy, the oscillator is off frequency. If the other sideband sounds good,
> then you may have a bad filter. Again, the procedure worked a lot better on the T-4X. The C filters are so much
> steeper that the 'sweet spot' between them has a pretty wide 'null' area, AND the skirts are so steep that a small CAR

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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >
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> >
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> >
> >
> > Thanks,
> >
> >
> > Doug - N9XTF
> >
> >
> >
> >
>
>
> ---
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>
>

18391. John T. Frye

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 17:58:48 UTC
From: <kmx888@...>
Topic: 18391 Message: 18391

I was killing time and trolled through a few website of our more well known members. One of them said that he got a great deal of good from a book entitled "Basic Radio Course" by John T. Frye. The book can be hard to find as it is long out of print but I did find a paperback on Amazon. I had to look several times The price was about $15.

"Basic Radio Course" is the best book on radios that I have ever read. Most texts or articles are highly technical and go into great detail and can lose you pretty fast. For the first time this book taught me about how radios work and why in simple easy to understand language. I cannot recommend it enough to anyone that is not deeply immersed in the art of repair and understanding. It can be a bit hard to find but is well worth it.
Kevin
KD0ILM/XV2KM

18392. Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 18:26:26 UTC
From: Doug
Topic: 18383 Message: 18392

Garey,

Thanks for laying it out That way; I wanted to make sure that I was making all of the adjustments properly. I should have it adjusted properly but I'm going to got through it again, per your example to ensure it is correct.

73,

Doug - N9XTF

Sent from my iPhone

> On Jan 28, 2014, at 12:44, Garey Barrell <k4oah@...> wrote:
>
> Doug -
>
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> Glen Allen, VA
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> >
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> > *Subject:* Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator
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> >
> > Two possibilities on your 'tinny' audio. Get your friend to switch sidebands with you and see how the other sideband
> > sounds to him. If it is very muddled and bassy, the oscillator is off frequency. If the other sideband sounds good,
> > then you may have a bad filter. Again, the procedure worked a lot better on the T-4X. The C filters are so much
> > steeper that the 'sweet spot' between them has a pretty wide 'null' area, AND the skirts are so steep that a small CAR
> > OSC frequency change can make a big difference. If you have or have access to a counter, the CAR OSC should be VERY
> > close to 5.645.000 MHz. If you have a modern transceiver with general coverage receiver, you can just listen to the CAR
> > OSC to verify the frequency.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com <http://www.k4oah.com>>
> >
> > dcoffman@... <mailto:dcoffman@...> wrote:
> > >
> > >
> > > I am trying to align a T-4XC, section 5-9 of the manual, Carrier Osc, Filter Match and Balanced Modulator. I am
> > > unable to derive any plate current, above resting current, with any of the adjustments described in the manual.
> > >
> > >
> > > What I have done is loaded up the T-4XC into a dummy load and then attached an R-4C to the T-4XC with only the receive
> > > antenna connection. I then shorted the mic jack to ground and I get a S8 signal on the receiver. I rotated the
> > > carrier balance control CCW, but there is no stop at full CCW so I moved it to obtain an S meter maximum on the
> > > receiver around 20 over 9. I tuned T14, T2 and T3 for maximum S meter level. I then re-balanced the system by turning
> > > the Carrier balance to bring the receiver's S meter to the lowest value I could obtain I then adjusted C-17 to reduce
> > > the level further. I am able to reduce the signal to about S5 on the attached R-4C. I removed the short and retuned
> > > the radio for maximum output, reduced output to about 20 watts and adjusted C6 (trimmer on the underside accessible

> > > from a hole in the back panel) so that the output is exactly the same on both upper and lower sideband.
> > >
> > >
> > > The problem that I am having is that the resultant received audio, at my local Elmer's receiver, is extremely tinny or
> > > pinched. He explains that it sounds very pinched like I am out of the filter's pass band. I am using a D104
> > > microphone that works quite well with my TR-4Cw. I do not have this audio issue using this mic on the TR-4.
> > >
> > >
> > > Am I anywhere close to adjusting the transmitter properly? C17 is not mentioned in the manual for this adjustment, is
> > > this to be adjusted? I need to verify that C6 is the trimmer accessible from the back panel of the rig underneath the
> > > and to the right of the carrier balance. Should I be able to null the transmitter farther that I did?
> > >
> > >
> > > Thanks,
> > >
> > >
> > > Doug - N9XTF
> > >
> > >
> > >
> > >
> >
> >
> > --
> > PDSWireless
> > Quick and Simple Internet Access
> > Get it now! <http://www.pdswireless.com>
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>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18393. Re: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and Balanced Modulator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 18:32:03 UTC
From: Richard Knoppow
Topic: 18383 Message: 18393

```
----- Original Message -----
From: <dcoffman@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, January 28, 2014 4:38 AM
Subject: [DrakeRadio] T-4XC Carrier Osc, FIlter Match and
Balanced Modulator

>
> I am trying to align a T-4XC, section 5-9 of the manual,
> Carrier Osc, Filter Match and Balanced Modulator. I am
> unable to derive any plate current, above resting current,
> with any of the adjustments described in the manual.
>
>
> What I have done is loaded up the T-4XC into a dummy load
> and then attached an R-4C to the T-4XC with only the
> receive antenna connection. I then shorted the mic jack
> to ground and I get a S8 signal on the receiver. I
> rotated the carrier balance control CCW, but there is no
> stop at full CCW so I moved it to obtain an S meter
> maximum on the receiver around 20 over 9. I tuned T14, T2
> and T3 for maximum S meter level. I then re-balanced the
> system by turning the Carrier balance to bring the
> receiver's S meter to the lowest value I could obtain I
> then adjusted C-17 to reduce the level further. I am able
> to reduce the signal to about S5 on the attached R-4C. I
> removed the short and retuned the radio for maximum
> output, reduced output to about 20 watts and adjusted C6
> (trimmer on the underside accessible from a hole in the
> back panel) so that the output is exactly the same on both
> upper and lower sideband.
>
>
> The problem that I am having is that the resultant
> received audio, at my local Elmer's receiver, is extremely
> tinny or pinched. He explains that it sounds very pinched
> like I am out of the filter's pass band. I am using a
> D104 microphone that works quite well with my TR-4Cw. I
> do not have this audio issue using this mic on the TR-4.
>
>
> Am I anywhere close to adjusting the transmitter properly?
> C17 is not mentioned in the manual for this adjustment, is
> this to be adjusted? I need to verify that C6 is the
```

> trimmer accessible from the back panel of the rig
> underneath the and to the right of the carrier balance.
> Should I be able to null the transmitter farther that I
> did?
>
>
> Thanks,
>
>
> Doug - N9XTF
>

I don't have a C line but will pass along experience
with a T4XB. These two have a lot of differences but the
modulator is very similar. Mine has 8 pole filters. I am
able to get the carrier oscillator centered by using an
oscilloscope on the output. A good RF voltmeter will work
as well and probably also a receiver. Unbalance the
balanced modulator as much as possible using the pot. Then
adjust the frequency trimmer (C-6 on the C) so that the
level remains the same while switching back and forth
between sidebands. I double checked this procedure by
listening to my signal on a separate receiver. The TX
running into a dummy load and the receiver isolated. I
tried this on a couple of receivers with wide enough and
symmetrical enough passbands to allow hearing either
sideband without retuning (SP-600-JX and RCA AR-88). I
found the quality was identical when the carrier was
centered as above. I don't know where C-6 is on the C but
it should not be too difficult to track it down.
Balancing the balanced modulator. There are two
adjustments and they interact. One is the carrier balance
pot and the other is a capacitor to trim out residual
capacitive unbalance. I use a receiver coupled to the dummy
load to make this adjustment. If your D-104 is on the
switch stand lock the PTT and have audio gain at minimum.
Adjust the balance pot for minimum. Then adjust the
capacitor to improve the null. Then readjust the pot. If the
capacitor is off by much you may have to juggle a few times.
The carrier suppression of the 4 series is very good and
seems to be pretty stable.
Once these adjustments are done the audio quality of
the two sidebands should be identical. If its not you may
have a bad filter. Its important to get the filter matching
transformers adjusted correctly bacause if they are not they
can also introduce some lack of symmetry in the response.
Note that the D-104 has a rather tinny sound. This is
sometimes blamed on working it into a lower than optimum
impedance but the microphone is designed to have this kind
of response. It rolls off below about 500hz and has a fairly

high rise above that. I have compared a couple of D-104's to other mics on my T4XB and also TR-4 and don't like the quality although its probably advantageous for cutting though noise. I settled on an Electro-Voice 664 based on my own listening and on signal reports. The key is does it sound the same on both sidebands?
I hope this is helpful.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18394. RE: [DrakeRadio] John T. Frye

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 19:12:15 UTC
From: Glenn Blum
Topic: 18391 Message: 18394

I'll have to check that out.

-----Original Message-----
From: "kmx888@aol.com" <kmx888@...>
Sent: ☐1/☐28/☐2014 11:58 AM
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] John T. Frye

I was killing time and trolled through a few website of our more well known members. One of them said that he got a great deal of good from a book entitled "Basic Radio Course" by John T. Frye. The book can be hard to find as it is long out of print but I did find a paperback on Amazon. I had to look several times The price was about $15.

"Basic Radio Course" is the best book on radios that I have ever read. Most texts or articles are highly technical and go into great detail and can lose you pretty fast.
For the first time this book taught me about how radios work and why in simple easy to understand language. I cannot recommend it enough to anyone that is not deeply immersed in the art of repair and understanding. It can be a bit hard to find but is well worth it.
Kevin
KD0ILM/XV2KM

[The entire original message is not included.]

18395. SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 19:29:55 UTC
From: Bob Jackson
Topic: 18395 Message: 18395

I'm actively looking to purchase an SW-4A and would be interested in discussing details with anyone that has one for sale.

18396. Re: [DrakeRadio] TR-7 low power output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-28 21:53:03 UTC
From: Jim Shorney
Topic: 18349 Message: 18396

My take on the predriver pot was that the caution was just related to the early version board, and was basically just because it was a cheap junk pot. I've never seen an early predriver, I suspect service took as many of them out of circulation as they could.

Bob K9JU came up with a stripped down version of the PIN attenuator that attenuates only on the low bands. I'm going to try that one out when I get a round tuit. The problem now is that this ARRL centennial W1AW/everywhere event has got me burning up the airwaves and I don't want to have the main rig offline for any length of time. I need to give the spare a tune-up and put it online for a while, I guess....

73

-Jim
NU0C

On Tue, 28 Jan 2014 10:21:51 -0500, Garey Barrell wrote:

>Jim -
>
>Good point..... I've seen more than a few that were prone to oscillation of some sort, particularly on the 40M band. The
>service info recommends against moving that predriver pot, implying that damage of some sort (inferred to be to the pot
>itself) would result. I wonder if instead there is some 'sweet spot' in those early amps that was critical to stable
>operation.
>
>Floyd's article you referenced is the best overall reference. The PIN diode attenuator is perhaps slightly overkill, but
>certainly not a bad idea.
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
>> Interesting conversation. It has been observed that some TR-7 PAs have a
>> tendency to oscillate in the 40-Meter segment when connected to a reactive
>> load. The root cause has not been uncovered yet, and the workaround solution
>> seems to less predriver gain. Adjust the PO to 100 watts via the service manual
>> procedure for adjusting predriver gan and ALC level. A less than ideal
>> solution, so investigation is ongoing. A PIN diode attenuator add-in that has
>> been used by some ops to level out the drive requirements across the spectrum
>> also seems to help with this.

>>
>> I had one case where leaky driver transistors caused strange power output
>> anomalies.
>>
>> An excellent writeup on the TR-7 PA deck can be found here:
>>
>> http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_Amp_Repair/TR7-Amp.htm
>>
>> The wires connecting the PA deck are long enough to lift it out and lay it on
>> top the radio to work on it. Very handy. Someone was thinking when they did
>> that design.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>>
>> On Mon, 27 Jan 2014 10:32:05 -0500, Garey Barrell wrote:
>>
>>> Jose -
>>>
>>> Strange, I would have thought the same about the LP filter.
>>>
>>> Perhaps a PA oscillation or spurious output? Direct to dummy would allow a 'non-fundamental' to contribute to the
>>> total power seen, AND a better match. Maybe fire up the spectrum analyzer!! (Or grid dip meter!! :-))
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Jose V. Gavila wrote:
>>>> Hi all,
>>>>
>>>> I am working on a TR-7 with a low power output problem. But it is
>>>> somewhat weird: on CW, for instance, aon 40m band, you get barely 8W
>>>> with a power supply current of 15A. The situation is similar for other
>>>> bands, but power consumption and power output are different on each.
>>>>
>>>> I have tried to directly connect the PA output to a dummy load and then,
>>>> with less power supply consumption, I get more power (i.e. 50W at
>>>> 7.1MHz, with a current of 12A)
>>>>
>>>> So it seems to me like a problem on the LOW PASS filter assembly, but I
>>>> have looked all that area and have not located any fault.
>>>>

>>>> The RX/TX relay is also working properly. I have cleaned the contacts,
>>>> just in case, but the problem remains the same.
>>>>
>>>> Any hint on what could happen?
>>>>
>>>> Best regards,
>>>>
>>>> JOSE
>>>>
>>>
>> --
>> ☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"
>>
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>> Yahoo Groups Links
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>
>Yahoo Groups Links
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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18397. Re: [DrakeRadio] TR-4C dials rubbing

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 02:29:53 UTC
From: VE3AX/7
Topic: 18230 Message: 18397

Steve:

If your dials are rubbing against the dial marker window, it sounds like your marker window is mounted on the inner wall of the inner front sub-panel as some earlier C-line models were. You can easily move it to between the front panel and the sub-panel, as later models were, by removing the front panel and mounting it to the same holes withe the same screws. There is room, and that buys you a bit of clearance for the spinning dials on the inner wall. If the dials are warped badly enough that they now rub against the metal sub-panel, place a bit of felt on each side of the dial cutout with double sided sticky tape.

Garey is right about the array of different arrangements of the dials. Some have no washers, some have one, some have two, some have three of different thicknesses....some have two brass rivets, some have three, and some have none....the latter just have two plastic posts on the rear hub gear that have been melted slightly on their tops after the dials are mounted (have only seen one like this – on an early SPR-4). I have two different thicknesses of plastic washers I keep here for dial “adjustments” as required, but admit that sometimes the use of these is limited by the length of available space on the plastic hub gear. I try to max out the space between the dials if the dials are warped with as many washers as I can fit on that hub without the Khz dial falling off the front. Later serial numbers seem to be less prone to these limitations and rarely have issues with the dials rubbing, at least from my experience with them.

John Kriner (tr7dude on E-pay) used to have some of the Drake washers available. Not sure if he has any left or not. I’ve used homemade washers cut out of yogurt container lids in extreme cases! Not my first choice obviously, but you’d never know from the front once it’s back together.

Good luck!

73

Peter
VE3AX/7

From: Steve VK2SJA
Sent: Monday, January 27, 2014 9:09 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C crystal bank order

Many thanks Garey!

It would be great if this is the only mistake I make during this
restoration. Probably won't be though ;-)

Slowly rebuilding her after fairly major strip and clean. A few new
replacement parts going in at the same time. Hayseed multi-cap kit, blue
LED lighting, new rubber drive bush for the PTO etc, etc.

She is really starting to sparkle.

I think I need a felt washer to stop the front dial from rubbing against the dial marker perspex window.

BTW does anyone know what stops the two clear dial plates from rubbing against each-over? Is it just those two tiny plastic nibs that protrude in front of the rear most dial plate where the rear dial plate is attached to a plastic cog? Or perhaps my assembly is missing a spacer/washer between the dial plates?

I completely rebuilt the PTO. Very pleased with result. I'll swear someone used some sort of axle grease up front. Black sticky grease all over everything. Yuck!!

73, Steve.
VK2SJA

> Steve -
>
> Easy..... The go in order of increasing frequency starting with 21.5
> closest to the chassis side.
>
> 21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

18398. Re: [DrakeRadio] Digest Number 2444

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 04:58:17 UTC
From: <wa7zyq@...>
Topic: 18398 Message: 18398

Drake Radios You can get a pdf copy of that book on cd here:

http://www.ebay.com/itm/Gernsback-Library-44-Basic-Radio-Course-CDROM-/200692897318?pt=US_Manuals_Magazines&hash=item2eba3a9626

David, WA7ZYQ

I was killing time and trolled through a few website of our more well known members. One of them said that he got a great deal of good from a book entitled "Basic Radio Course" by John T. Frye. The book can be hard to find as it is long out of print but I did find a paperback on Amazon. I had to look several times The price was about $15.

"Basic Radio Course" is the best book on radios that I have ever read. Most texts or articles are highly technical and go into great detail and can lose you pretty fast.
For the first time this book taught me about how radios work and why in simple easy to understand language. I cannot recommend it enough to anyone that is not deeply immersed in the art of repair and understanding. It can be a bit hard to find but is well worth it.
Kevin
KD0ILM/XV2KM

18399. Re: [DrakeRadio] Digest Number 2444

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 06:09:08 UTC
From: Brenton Crowhurst
Topic: 18398 Message: 18399

I, for,one, am certainly in the category of "appliance driver"--contemptible scum thst may be to some, but I think our hobby is enriched, not diluted by the addition of those whose technical competence lies elsewhere!

But to step off my not so subtle soapbox, I thank you for this. I'll look for a copy to increase my knowledge of radio electronic stuff.

73

Brenton Crowhurst
VE6IE

Sent from my iPad

> On Jan 28, 2014, at 9:58 PM, <wa7zyq@stmarieswireless.com> wrote:
>
> You can get a pdf copy of that book on cd here:
>
> http://www.ebay.com/itm/Gernsback-Library-44-Basic-Radio-Course-CDROM-/200692897318?pt=US_Manuals_Magazines&hash=item2eba3a9626
>
>
> David, WA7ZYQ
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> "Basic Radio Course" is the best book on radios that I have ever read. Most texts or articles are highly technical and go into great detail and can lose you pretty fast.
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> Kevin
> KD0ILM/XV2KM
>
>

18400. Re: [DrakeRadio] TR-4C dials rubbing

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 08:55:46 UTC
From: Steve VK2SJA
Topic: 18230 Message: 18400

Hi Peter,

Thank you very much for that post. Very informative!

Yes, my dial marker window was mounted on the inside of the front sub panel. I have now moved it to the front. Front dial no longer rubs here. Now why didn't I think of that?

My dial didn't appear to be touching the actual chassis but it would have been close. I had some nice black felt with a contact adhesive backing. So I cut two little rectangles out and stuck them either side of the dial window bottom edge. My impression was that tuning was both quieter and smoother by a small mount.

My PTO had no spacer washers from memory. Certainly none between the two dials where I half expected to find one. My PTO is I think, like the one you describe where the rear dial is affixed to the cog by two plastic lugs that have been melted. Front one has two only brass pins.

The two dial plates do touch (scrape against) each-over at certain points in the rotation. So my efforts so far have made a great improvement. But there is still a way to go. I'll strip the PTO back out and see if I can't work out exactly which dial is warped (probably both). Perhaps play around with some home made washers.

The thought of trying to do a controlled "melt" to flatten them out again is a little too scary for my likes.

Thanks again.

73, Steve.

> Steve:
>
> If your dials are rubbing against the dial marker window, it sounds like
> your marker window is mounted on the inner wall of the inner front
> sub-panel as some earlier C-line models were. You can easily move it to
> between the front panel and the sub-panel, as later models were, by
> removing the front panel and mounting it to the same holes withe the same
> screws. There is room, and that buys you a bit of clearance for the
> spinning dials on the inner wall. If the dials are warped badly enough
> that they now rub against the metal sub-panel, place a bit of felt on each
> side of the dial cutout with double sided sticky tape.
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> different thicknesses....some have two brass rivets, some have three, and

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> gear that have been melted slightly on their tops after the dials are
> mounted (have only seen one like this – on an early SPR-4). I have two
> different thicknesses of plastic washers I keep here for dial
> “adjustments” as required, but admit that sometimes the use of these
> is limited by the length of available space on the plastic hub gear. I
> try to max out the space between the dials if the dials are warped with as
> many washers as I can fit on that hub without the Khz dial falling off the
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> John Kriner (tr7dude on E-pay) used to have some of the Drake washers
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> washers cut out of yogurt container lids in extreme cases! Not my first
> choice obviously, but you’d never know from the front once it’s back
> together.
>
> Good luck!
>
> 73
>
> Peter
> VE3AX/7
>
> From: Steve VK2SJA
> Sent: Monday, January 27, 2014 9:09 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] TR-4C crystal bank order
>
>
> Many thanks Garey!
>
> It would be great if this is the only mistake I make during this
> restoration. Probably won't be though ;-)
>
> Slowly rebuilding her after fairly major strip and clean. A few new
> replacement parts going in at the same time. Hayseed multi-cap kit, blue
> LED lighting, new rubber drive bush for the PTO etc, etc.
>
> She is really starting to sparkle.
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> the dial marker perspex window.
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> BTW does anyone know what stops the two clear dial plates from rubbing
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> the dial plates?

>
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> used some sort of axle grease up front. Black sticky grease all over
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>
> 73, Steve.
> VK2SJA
>
>> Steve -
>>
>> Easy..... The go in order of increasing frequency starting with 21.5
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>> 21.5 - 35.5 - 42.5 - 43 - 43.6 MHz.
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> <www.k4oah.com>
>
>
>
>

18401. TR-4 Microphone

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 06:42:35 UTC
From: <kc6cnn@...>
Topic: 18401 Message: 18401

Does anyone have a D-104 microphone that I can purchase to use with my Drake TR-4 Station?
Thanks
Gerald

18402. Re: [DrakeRadio] TR-4C dials rubbing

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 14:23:20 UTC
From: Garey Barrell
Topic: 18230 Message: 18402

Steve / Peter -

It's been a LONG time, but I believe the fiducial window was originally on the inside of the sub-panel. I think the
problem came about when the radio went from a single dial to a double dial. Obviously the closer the fiducial is to the
scale, the less parallax involved. Granted it's not exactly a high precision dial assembly, but.... Certainly moving it
to the outside is a reasonable approach to resolve any interference.

Heating the plates to flatten them really doesn't 'endanger' them. Polycarbonate doesn't melt until around 300 degrees
F, almost twice as high as PVC phono records (175 degrees F). Then again, I've never tried it, but I do know people who
have done it successfully.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Peter,
>
> Thank you very much for that post. Very informative!
>
> Yes, my dial marker window was mounted on the inside of the front sub
> panel. I have now moved it to the front. Front dial no longer rubs here.
> Now why didn't I think of that?
>
> My dial didn't appear to be touching the actual chassis but it would have
> been close. I had some nice black felt with a contact adhesive backing. So
> I cut two little rectangles out and stuck them either side of the dial
> window bottom edge. My impression was that tuning was both quieter and
> smoother by a small mount.
>
> My PTO had no spacer washers from memory. Certainly none between the two
> dials where I half expected to find one. My PTO is I think, like the one
> you describe where the rear dial is affixed to the cog by two plastic lugs
> that have been melted. Front one has two only brass pins.
>
> The two dial plates do touch (scrape against) each-over at certain points
> in the rotation. So my efforts so far have made a great improvement. But
> there is still a way to go. I'll strip the PTO back out and see if I can't

> work out exactly which dial is warped (probably both). Perhaps play around
> with some home made washers.
>
> The thought of trying to do a controlled "melt" to flatten them out again
> is a little too scary for my likes.
>
> Thanks again.
>
> 73, Steve.
>
>
>> Steve:
>>
>> If your dials are rubbing against the dial marker window, it sounds like
>> your marker window is mounted on the inner wall of the inner front
>> sub-panel as some earlier C-line models were. You can easily move it to
>> between the front panel and the sub-panel, as later models were, by
>> removing the front panel and mounting it to the same holes withe the same
>> screws. There is room, and that buys you a bit of clearance for the
>> spinning dials on the inner wall. If the dials are warped badly enough
>> that they now rub against the metal sub-panel, place a bit of felt on each
>> side of the dial cutout with double sided sticky tape.
>>
>> Garey is right about the array of different arrangements of the dials.
>> Some have no washers, some have one, some have two, some have three of
>> different thicknesses....some have two brass rivets, some have three, and
>> some have none....the latter just have two plastic posts on the rear hub
>> gear that have been melted slightly on their tops after the dials are
>> mounted (have only seen one like this – on an early SPR-4). I have two
>> different thicknesses of plastic washers I keep here for dial
>> “adjustments” as required, but admit that sometimes the use of these
>> is limited by the length of available space on the plastic hub gear. I
>> try to max out the space between the dials if the dials are warped with as
>> many washers as I can fit on that hub without the Khz dial falling off the
>> front. Later serial numbers seem to be less prone to these limitations
>> and rarely have issues with the dials rubbing, at least from my experience
>> with them.
>>
>> John Kriner (tr7dude on E-pay) used to have some of the Drake washers
>> available. Not sure if he has any left or not. I’ve used homemade
>> washers cut out of yogurt container lids in extreme cases! Not my first
>> choice obviously, but you’d never know from the front once it’s back
>> together.
>>
>> Good luck!
>>
>> 73
>>
>> Peter
>> VE3AX/7

>>
>> From: Steve VK2SJA
>> Sent: Monday, January 27, 2014 9:09 PM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] TR-4C crystal bank order
>>
>>
>> Many thanks Garey!
>>
>> It would be great if this is the only mistake I make during this
>> restoration. Probably won't be though ;-)
>>
>> Slowly rebuilding her after fairly major strip and clean. A few new
>> replacement parts going in at the same time. Hayseed multi-cap kit, blue
>> LED lighting, new rubber drive bush for the PTO etc, etc.
>>
>> She is really starting to sparkle.
>>
>> I think I need a felt washer to stop the front dial from rubbing against
>> the dial marker perspex window.
>>
>> BTW does anyone know what stops the two clear dial plates from rubbing
>> against each-over? Is it just those two tiny plastic nibs that protrude in
>> front of the rear most dial plate where the rear dial plate is attached to
>> a plastic cog? Or perhaps my assembly is missing a spacer/washer between
>> the dial plates?
>>
>> I completely rebuilt the PTO. Very pleased with result. I'll swear someone
>> used some sort of axle grease up front. Black sticky grease all over
>> everything. Yuck!!
>>
>> 73, Steve.
>> VK2SJA
>>

18403. Re: [DrakeRadio] DR7A TTL PROM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 16:13:58 UTC
From: Chgypsy@...
Topic: 17478 Message: 18403

jshorney@... writes:

The jumper board does not have a PROM, just a pair of 4050s. This is where I got confused before, The PROM on the DR-7 has nothing to do with setting the synthesizer N-Codes, that is done by the bandswitch via the digital control board. The digital control board translates the four-bit binary bandswitch data into an 8-bit BCD N-Code. With the jumper board, the N-Code from the digital control board is basically passed through to the synthesizer. With the DR-7 the N-code is clocked into a pair of preset up/down counters as the band switch is rotated to the next position. This is your "default" 500 KHz ham band segment for each band switch position. The Up/Down pusbuttons clock the preset counters up or down, which increments or decrements the N-Code to the next 500 KHz segment. The fourth bit is used via Q9001 to create the "Ham Band" (H.B.) signal to flag the transmit inhibit circuit to allow transmitting in a valid ham band (in an unmodified radio).

The late version of the digital control PCB uses a PROM to replace some of the discrete logic. I see that it uses an 82S123. This may be what you are thinking of. I've never seen one, so I have not tried to work out the "better allband transmit mod" for that board.

18404. Re: [DrakeRadio] TR-4 Microphone

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 17:39:30 UTC
From: Richard Knoppow
Topic: 18401 Message: 18404

----- Original Message -----
From: <kc6cnn@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, January 28, 2014 10:42 PM
Subject: [DrakeRadio] TR-4 Microphone

>
> Does anyone have a D-104 microphone that I can purchase to
> use with my Drake TR-4 Station?
> Thanks
> Gerald
>
>
I am curious why you want a D-104 particularly. Be
careful when buying any crystal microphone because the
elements are vulnerable to heat, mechanical shock, and
moisture. The D-104 seems to be somewhat more rugged than
some others but the problems are with the generic type. The
D-104 has a good response for cutting through noise but I
find them a little shrill and prefer other microphones.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18405. L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 21:26:47 UTC
From: Kris Merschrod
Topic: 18348 Message: 18405

Good afternoon,

On Ebay is someone's creativity in the form of a quad L4B What was the idea?

http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb

Kris KM2KM

18406. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 21:31:43 UTC
From: Don Cunningham
Topic: 18348 Message: 18406

Kris,
That ad says modified for 4 tubes AND single band. Chances are VERY good that the single band is 11M. I've seen a LOT of them modded for multiple tubes or "hotter" tubes over the years and 11M. Sad.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4259 / Virus Database: 3681/7042 - Release Date: 01/29/14

18407. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 21:39:02 UTC
From: Doug
Topic: 18348 Message: 18407

Definitely a CB conversion attempt that didn't work or the chassis wouldn't be for sale.

Sent from my iPhone

> On Jan 29, 2014, at 16:26, "Kris Merschrod" <kris@...> wrote:
>
> □
>
> Good afternoon,
>
> On Ebay is someone's creativity in the form of a quad L4B What was the idea?
>
> http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb
>
> Kris KM2KM
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18408. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 21:53:10 UTC
From: Dan Galligan
Topic: 18348 Message: 18408

Yep, look at the coil. Aside from the cheesy aesthetic modifications, the size of the coil, tells the tale.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Jan 29, 2014, at 15:39, Doug <dcoffman@...> wrote:
>
>
>
> Definitely a CB conversion attempt that didn't work or the chassis wouldn't be for sale.
>
> Sent from my iPhone
>
>> On Jan 29, 2014, at 16:26, "Kris Merschrod" <kris@...> wrote:
>>
>> □
>>
>> Good afternoon,
>>
>> On Ebay is someone's creativity in the form of a quad L4B What was the idea?
>>
>> http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb
>>
>> Kris KM2KM
>
> PDSWireless
> Quick and Simple Internet Access
> Get it now!
>
>
>

18409. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 22:07:20 UTC
From: Barry
Topic: 18348 Message: 18409

Note the mark on the Plate dial just above the "10"...

Barry - N4BUQ

> Kris,
> That ad says modified for 4 tubes AND single band. Chances are VERY
> good that the single band is 11M. I've seen a LOT of them modded for
> multiple tubes or "hotter" tubes over the years and 11M. Sad.
> 73,
> Don, WB5HAK

18410. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-29 22:40:57 UTC
From: Evan Rolek
Topic: 18348 Message: 18410

That's an easy one, more power on CH 19...

-----Original Message-----
From: Kris Merschrod <kris@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Jan 29, 2014 4:26 pm
Subject: [DrakeRadio] L4B with four tubes!

☐
Good afternoon,

On Ebay is someone's creativity in the form of a quad L4B What was the idea?

http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb

Kris KM2KM

18411. Early TR-7, RF getting into the audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 00:52:59 UTC
From: Leon Zebrick
Topic: 18411 Message: 18411

Greetings all. I have a 6xx serial number TR-7 and I can hear myself in the speaker, low and a bit garbled. This was only a minor annoyance until I brought a SP-75 speech processor into the mix, now with the enhanced sensitivity, feedback is an issue. I assume the fix will center on installing shunt capacitance here and there, could use some specific recommendations on best placement, or any other pointers. Thanks!
Leon (N5LAZ).

18412. I Need Help With T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 01:07:21 UTC
From: John Meyer
Topic: 18412 Message: 18412

My T-4XC tunes up normally in the tune mode. When I switch to CW and key down I get full output no matter where the gain control is set. The only way I can reduce output is to detune the RF tune control.

John Meyer K8IHY

18413. Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 01:20:22 UTC
From: <lzebrick@...>
Topic: 18413 Message: 18413

Greetings all,
I have a 6xx serial number TR-7 and can hear myself in the speaker, low and a bit garbled. This was a minor annoyance until I introduced a SP75 speech processor - now the increased microphone circuit sensitivity is causing a bit of feedback, especially on key up. I expect the fix to involve shunt capacitors placed here and there and could use some guidance on best placement, or any other tips re this issue. Thanks!
N5LAZ

18414. Re: [Drakelist] Need Help With T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 01:35:22 UTC
From: Garey Barrell
Topic: 18414 Message: 18414

John -

Possibly a bad ground on the GAIN control, second most likely is an open GAIN control, or a bad ground on R106. This is
actually a two section pot, one for TUNE (R88, front,) the other for CW (R105, rear).

In TUNE mode the transmitter is set up for SSB, and the MIC amp is converted to a ~1 kHz oscillator. This tone is fed
to the BAL MOD via the GAIN control, R88.

In CW, the 'other' section of the GAIN control, R105, is used to control a DC current applied to the diodes in the BAL
MOD, unbalancing it to allow the CAR OSC through.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Meyer wrote:
> My T-4XC tunes up normally in the tune mode. When I switch to CW and key down I get full output no matter where the
> gain control is set. The only way I can reduce output is to detune the RF tune control.
>
> John Meyer K8IHY
>

18415. Re: [DrakeRadio] Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 01:57:18 UTC
From: Jim Shorney
Topic: 18413 Message: 18415

Try the suggestions under #1 here:

http://www.alg.myzen.co.uk/radio/tr7/mods.htm

73

-Jim
NU0C

On 29 Jan 2014 17:20:22 -0800, lzebrick@... wrote:

>Greetings all,
>
>I have a 6xx serial number TR-7 and can hear myself in the speaker, low and a bit garbled. This was a minor annoyance until I introduced a SP75 speech processor - now the increased microphone circuit sensitivity is causing a bit of feedback, especially on key up. I expect the fix to involve shunt capacitors placed here and there and could use some guidance on best placement, or any other tips re this issue. Thanks!
>N5LAZ

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18416. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 02:22:34 UTC
From: Jim Shorney
Topic: 18348 Message: 18416

I'll bet it worked, all right. It probably put out lots of RF. Working WELL is another question. That's not required for that band.

73

-Jim
NU0C

On Wed, 29 Jan 2014 16:39:02 -0500, Doug wrote:

>Definitely a CB conversion attempt that didn't work or the chassis wouldn't be for sale.
>
>Sent from my iPhone
>
>> On Jan 29, 2014, at 16:26, "Kris Merschrod" <kris@merschrod.net> wrote:
>>
>> ï»¿
>>
>> Good afternoon,
>>
>> On Ebay is someone's creativity in the form of a quad L4B What was the idea?
>>
>> http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb
>>
>> Kris KM2KM

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18417. FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 02:53:55 UTC
From: Steve Wedge
Topic: 18417 Message: 18417

TR-4C is available. Got to start working on the older ones now.

I did the alignment today and this rig was not needing much other than a slight adjustment here and there.

200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
Receiver's just the way it should be!
Clean chassis. This one was so well-kept that I didn't need to do anything but blow some loose dust off. Small scratch on upper-right of front panel and the VOX pot has a side worn off. Has the correct mic jack. No mods and no NB. I'd say this is an 8/10.

Contact me off-list. Pics will be available as soon as it gets warm enough for me to go out to the shed again (Friday).

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18418. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 02:59:25 UTC
From: VE3AX/7
Topic: 18348 Message: 18418

Wow! That is one butt ugly L-4B! Whoever did that should be drawn and quartered.

That said, there have been some elegant conversions/homebrew projects of Drake gear. Search the web for some of Ron, W2CQM's L4B conversion projects, some to 6 meters, some with 8877's in place of the 3-500's. Sweet!

One of the nicest and most unique I've ever seen was Steve Powlishen's (K1FO-SK 2012) 2 meter 8877 amp in an L-4B cabinet. Steve and I first met in 1971 – we were both 19 yrs old, and we both loved Drake gear and were die-hard VHF DX-ers. Several years later Steve had the Drake TC-2 transmit converter coupled with a C-line driving his newly homebrewed 8877 that matched in it's L-4B cabinet – WOW! Was I impressed! I built my 1st 6m 8877 just after that but it was a plain-jane rack-mount. Three 2m 8877 bamps and a 220 Mhz 8877 were completed over the years here, but never a "Drake version". I always wanted to try that approach....hmmm, retiring soon!

Steve passed away in July 2012 from a form of brain cancer, far too young at 60 years. He was a master builder, famous for his K1FO yagi designs and the Lunar-Link amplifiers. Sure would like to know where his 2m 8877 "L4B" is now. Anyone on the list know?

Speaking of elegant Drake-related projects, take a look at Lee's scope...

http://emmittsfixitshop.com/Projects_SD-7.html

Fantastic job Lee!

73

Peter
VE3AX/7
From: Jim Shorney
Sent: Wednesday, January 29, 2014 6:22 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

I'll bet it worked, all right. It probably put out lots of RF. Working WELL is
another question. That's not required for that band.

73

-Jim
NU0C

On Wed, 29 Jan 2014 16:39:02 -0500, Doug wrote:

>Definitely a CB conversion attempt that didn't work or the chassis wouldn't be for sale.
>
>Sent from my iPhone
>

>> On Jan 29, 2014, at 16:26, "Kris Merschrod" <kris@...> wrote:
>>
>> ï»¿
>>
>> Good afternoon,
>>
>> On Ebay is someone's creativity in the form of a quad L4B What was the idea?
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>> http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash
=item2ece1376eb
>>
>> Kris KM2KM

--
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"The Doctor's Wife"

18419. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 04:07:16 UTC
From: Robert Logan
Topic: 18417 Message: 18419

Steve, price-wise? Bob, NZ5A

Sent from my iPhone

On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...> wrote:

TR-4C is available. Got to start working on the older ones now.

I did the alignment today and this rig was not needing much other than a slight adjustment here and there.

200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
Receiver's just the way it should be!
Clean chassis. This one was so well-kept that I didn't need to do anything but blow some loose dust off. Small scratch on upper-right of front panel and the VOX pot has a side worn off. Has the correct mic jack. No mods and no NB. I'd say this is an 8/10.

Contact me off-list. Pics will be available as soon as it gets warm enough for me to go out to the shed again (Friday).

73,

Steve Wedge, W1ES/4

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All my computers have my signature with various pearls of wisdom appended thereto.

18420. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 04:12:40 UTC
From: Robert Logan
Topic: 18417 Message: 18420

Sorry for broadcasting my question and taking up BW. Hit the wrong button.

Sent from my iPhone

On Jan 29, 2014, at 10:07 PM, Robert Logan <bob.logan47@...> wrote:

Steve, price-wise? Bob, NZ5A

Sent from my iPhone

On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...> wrote:

TR-4C is available. Got to start working on the older ones now.

I did the alignment today and this rig was not needing much other than a slight adjustment here and there.

200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
Receiver's just the way it should be!
Clean chassis. This one was so well-kept that I didn't need to do anything but blow some loose dust off. Small scratch on upper-right of front panel and the VOX pot has a side worn off. Has the correct mic jack. No mods and no NB. I'd say this is an 8/10.

Contact me off-list. Pics will be available as soon as it gets warm enough for me to go out to the shed again (Friday).

73,

Steve Wedge, W1ES/4

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All my computers have my signature with various pearls of wisdom appended thereto.

18421. RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 07:52:43 UTC
From: <f6dfz@...>
Topic: 18413 Message: 18421

Hi Jim and the group,

This reflector is very and formative and friendly.

My main rig is a TR7A, but I had 4 more TR7 in the past.
I sold them, but can't live for a long time without one.
See qrz.com

All my TR7 had audio feedback, even with added decoupling of audio lines.
This is specially true with speech processing and/or high ALC driving.

Audio muting is in fact not perfect.

I use and outboard passive filter, low pass RC for SSB, and bandpass LC series centered on 500 Hz for CW.
The SSB filter get ride of the audio feedback, of the switching transient and of the high pitched noise present in the audio, due partially to the oscillator of the negative power supply.
The CW filter is wonderful and is much needed for the same reasons.
I always use headphones, this kind of filter is not really adapted to loudspeaker.

With this small help, audio is wonderful.
Of course my TR7A is aligned for a 500 Hz CW T/R offset.

Best regards.

Georges F6DFZ

---In DrakeRadio@yahoogroups.com, <jshorney@...> wrote:

Try the suggestions under #1 here:

http://www.alg.myzen.co.uk/radio/tr7/mods.htm
http://www.alg.myzen.co.uk/radio/tr7/mods.htm

73

-Jim
NU0C

On 29 Jan 2014 17:20:22 -0800, lzebrick@... mailto:lzebrick@... wrote:

>Greetings all,
>
>I have a 6xx serial number TR-7 and can hear myself in the speaker, low and a bit garbled. This was a minor annoyance until I introduced a SP75 speech processor - now the increased microphone circuit sensitivity is causing a bit of feedback, especially on key up. I expect the fix to involve shunt capacitors placed here and there and could use some guidance on best placement, or any other tips re this issue. Thanks!

>N5LAZ

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18422. Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 08:28:01 UTC
From: Henny Kuyper
Topic: 18413 Message: 18422

Hey,

Well RF feedback is probably not the reason of your problem.

Please check 2nd IF/audio board schematics.
Q1113 is preamp for the audio output amplifier and get it's powersupply from either +10R or +10CW.
So Q1113 is only active during receive or in CW (to provide the sidetone audio).
In SSB mode, power to Q1113 is removed during transmit but.....C1151 still has some energy to power the preamp for a short time.
In fact the 22uF is a bit to large.
Some modifications even advise to enlarge this cap to 100uF.
Well in that case the preamp will never switch off and the SSB signal from the demodulator circuit will be fed to the audio output amplifier creating the garbled sound during SSB transmissions. And, yes, with the speech processor on, it's even worse.....

So be wise and check the value of Q1113, eventually replace it with a 4,7uF type and let me know the result.

Enjoy your TR7.

--
73, Henny, PA3HK
If it works, rip it apart and find out why!

(http://www.avast.com/)

Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus (http://www.avast.com/) actief is.

18423. Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 10:05:28 UTC
From: Henny Kuyper
Topic: 18413 Message: 18423

Sorry,

"So be wise and check the value of Q1113, eventually....."
should read; "So be wise and check the value of C1151, eventually....

Nice to learn from Georges, F6DF, that all his TR7's had audio feedback.
I bet if C1151 is replace bij 4,7uF, the problem is gone.

Best regards es mni DX

--
73, Henny, PA3HK
If it works, rip it apart and find out why!

(http://www.avast.com/)

Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus
(http://www.avast.com/) actief is.

18424. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 12:12:39 UTC
From: el34guy@...
Topic: 18348 Message: 18424

It actually has a bid right now of 300 bux!!!!

73
Mark
W0NCL

-----Original Message-----
From: VE3AX/7 <ve3ax@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Jan 29, 2014 8:59 pm
Subject: Re: [DrakeRadio] L4B with four tubes!

Wow! That is one butt ugly L-4B! Whoever did that should be drawn and quartered.

That said, there have been some elegant conversions/homebrew projects of Drake gear. Search the web for some of Ron, W2CQM's L4B conversion projects, some to 6 meters, some with 8877's in place of the 3-500's. Sweet!

One of the nicest and most unique I've ever seen was Steve Powlishen's (K1FO-SK 2012) 2 meter 8877 amp in an L-4B cabinet. Steve and I first met in 1971 – we were both 19 yrs old, and we both loved Drake gear and were die-hard VHF DX-ers. Several years later Steve had the Drake TC-2 transmit converter coupled with a C-line driving his newly homebrewed 8877 that matched in it's L-4B cabinet – WOW! Was I impressed! I built my 1st 6m 8877 just after that but it was a plain-jane rack-mount. Three 2m 8877 bamps and a 220 Mhz 8877 were completed over the years here, but never a "Drake version". I always wanted to try that approach....hmmm, retiring soon!

Steve passed away in July 2012 from a form of brain cancer, far too young at 60 years. He was a master builder, famous for his K1FO yagi designs and the Lunar-Link amplifiers. Sure would like to know where his 2m 8877 "L4B" is now. Anyone on the list know?

Speaking of elegant Drake-related projects, take a look at Lee's scope...

http://emmittsfixitshop.com/Projects_SD-7.html

Fantastic job Lee!

73

Peter
VE3AX/7

From: Jim Shorney
Sent: Wednesday, January 29, 2014 6:22 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

I'll bet it worked, all right. It probably put out lots of RF. Working WELL is another question. That's not required for that band.

73

-Jim
NU0C

On Wed, 29 Jan 2014 16:39:02 -0500, Doug wrote:

>Definitely a CB conversion attempt that didn't work or the chassis wouldn't be for sale.
>
>Sent from my iPhone
>
>> On Jan 29, 2014, at 16:26, "Kris Merschrod" <kris@...> wrote:
>>
>> ï»¿
>>
>> Good afternoon,
>>
>> On Ebay is someone's creativity in the form of a quad L4B What was the idea?
>>
>> http://www.ebay.com/itm/DRAKE-L4B-RF-DECK-/201025877739?pt=US_Ham_Radio_Amplifiers&hash=item2ece1376eb
>>
>> Kris KM2KM

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18425. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 12:55:35 UTC
From: <dcoffman@...>
Topic: 18348 Message: 18425

I'm all for experimentation, upgrades, improvements etc. but I absolutely hate to see people Jury Rig anything, especially one of these radios that so many work so hard to restore or preserve. Take a look at the speaker addition to the R-4A on EPay http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers&hash=item2ece3e8c55 http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers&hash=item2ece3e8c55 This one really makes me cringe.

18426. RE: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 13:02:06 UTC
From: keith evans
Topic: 18348 Message: 18426

And me!!!

Why do people Destroy good radio’s??

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of dcoffman@...
Sent: 30 January 2014 12:56
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

I'm all for experimentation, upgrades, improvements etc. but I absolutely hate to see people Jury Rig anything, especially one of these radios that so many work so hard to restore or preserve. Take a look at the speaker addition to the R-4A on EPay http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers <http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers&hash=item2ece3e8c55> &hash=item2ece3e8c55 This one really makes me cringe.

18427. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 13:49:57 UTC
From: Al Parker
Topic: 18417 Message: 18427

No problem, Bob. I've always wondered why Steve doesn't post his price
with his for sale "notice". We all are interested in knowing just what
the market is these days.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/29/2014 11:12 PM, Robert Logan wrote:
> Sorry for broadcasting my question and taking up BW. Hit the wrong button.
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 10:07 PM, Robert Logan <bob.logan47@...
> <mailto:bob.logan47@...>> wrote:
>
> Steve, price-wise? Bob, NZ5A
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...
> <mailto:w1es1982@...>> wrote:
>
> TR-4C is available. Got to start working on the older ones now.
> I did the alignment today and this rig was not needing much other than a
> slight adjustment here and there.
> 200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
> Receiver's just the way it should be!
> Clean chassis. This one was so well-kept that I didn't need to do
> anything but blow some loose dust off. Small scratch on upper-right of
> front panel and the VOX pot has a side worn off. Has the correct mic
> jack. No mods and no NB. I'd say this is an 8/10.
> Contact me off-list. Pics will be available as soon as it gets warm
> enough for me to go out to the shed again (Friday).
> 73,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom
> appended thereto.
>

>

18428. Re: [DrakeRadio] Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 14:11:56 UTC
From: Leon Zebrick
Topic: 18413 Message: 18428

Thanks for the tips. Will give it a try and post results.

Sent from my iPhone

On Jan 30, 2014, at 4:05 AM, Henny Kuyper <henny.kuyper@...> wrote:

> Sorry,
>
> "So be wise and check the value of Q1113, eventually....."
> should read; "So be wise and check the value of C1151, eventually....
>
> Nice to learn from Georges, F6DF, that all his TR7's had audio feedback.
> I bet if C1151 is replace bij 4,7uF, the problem is gone.
>
> Best regards es mni DX
>
> --
> 73, Henny, PA3HK
> If it works, rip it apart and find out why!
>
>
>
> Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus actief is.
>
>
>

18429. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 14:26:36 UTC
From: Kris Merschrod
Topic: 18348 Message: 18429

At least all that might be needed on the R4A is a new cabinet.
On the L4 you have to give the guy credit for trying to match the paint job.

Creativity is hard to hold back :>)

Have a nice day all, above single digits here

Kris KM2KM
----- Original Message -----
From: dcoffman@pdswireless.com
To: DrakeRadio@yahoogroups.com
Sent: Thursday, January 30, 2014 7:55 AM
Subject: Re: [DrakeRadio] L4B with four tubes!

I'm all for experimentation, upgrades, improvements etc. but I absolutely hate to see people Jury Rig anything, especially one of these radios that so many work so hard to restore or preserve. Take a look at the speaker addition to the R-4A on EPay http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers&hash=item2ece3e8c55 This one really makes me cringe.

18430. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 15:31:47 UTC
From: Joe - W7RKN
Topic: 18348 Message: 18430

No Mark...

As it is a CB powerhouse RF deck, the correct terminology is, 300 green stamps! Get that right! 10-4 good buddy???

<<GRIN>>

Joe - W7RKN
----- Original Message -----
From: el34guy@...
Subject: Re: [DrakeRadio] L4B with four tubes!

It actually has a bid right now of 300 bux!!!!

73
Mark
W0NCL

18431. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 15:38:28 UTC
From: el34guy@...
Topic: 18348 Message: 18431

Hey Joe,

I actually do remember S&H green stamps as a kid. My parents collected them. Doesn't a ham guy have the deck for sale(KF2C)? That' s what I thought was interesting.

Mark
W0NCL

-----Original Message-----
From: Joe - W7RKN <w7rkn.7@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Jan 30, 2014 9:31 am
Subject: Re: [DrakeRadio] L4B with four tubes!

☐

No Mark...

As it is a CB powerhouse RF deck, the correct terminology is, 300 green stamps! Get that right! 10-4 good buddy???

<<GRIN>>

Joe - W7RKN

----- Original Message -----

From: el34guy@...

Subject: Re: [DrakeRadio] L4B with four tubes!

It actually has a bid right now of 300 bux!!!!

73

Mark

W0NCL

18432. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 15:44:01 UTC
From: Joe - W7RKN
Topic: 18348 Message: 18432

"The need for speed?!!" ACK!!

Joe - W7RKN
----- Original Message -----
From: keith evans
Subject: RE: [DrakeRadio] L4B with four tubes!

And me!!!

Why do people Destroy good radio’s??

73

Keith G3VKW

18433. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:05:05 UTC
From: Joe - W7RKN
Topic: 18348 Message: 18433

My Mom used to collect them...we always had *books* in the kitchen drawer, along side the Blue Chip stamp books!

Pity the poor gas station attendant who forgot to give Mom her stamps on a gas up! (Or, for that matter, the free glass or dishware they all gave away! LOL)

Those were the days! {Also means I am getting old..... :(}

Joe - W7RKN

----- Original Message -----
From: el34guy@...
Subject: Re: [DrakeRadio] L4B with four tubes!

Hey Joe,

I actually do remember S&H green stamps as a kid. My parents collected them. Doesn't a ham guy have the deck for sale(KF2C)? That' s what I thought was interesting.

Mark
W0NCL

18434. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:14:37 UTC
From: Dan Galligan
Topic: 18348 Message: 18434

LOTS of ham licensees, are big time good buddies, on the CB. I never understood that. I ran a CB, from just before the mid-70's craze hit, into the 80's. Then, I got my ticket, and never looked back. But, I can say, that while I was driving truck, cross country, I did "marvel" at the junky radios, the CB crowd paid HIGH dollars for, then dumped even more money into "enhancing" them, with gadgets, that did no good. For half the money those guys would spend, I ran a Kenwood TS-570S, as my truck mobile. Even then, some of those guys ran such gawd-awful radios, and junky, class C amplifiers, that I would get interference from their transmissions on 11M, while I was trying to talk on 40.
Look, I get the fun of talking local, to a wider variety, of folks. I have a GMRS license, and have a couple of MURS radios, for talking with my wife, while I am out and about, on our acreage. But the stuff they do on CB, simply amazes me. For half the money, they could have ten times the radio, and infinite options, on various bands, if they'd just study, and get a license. But, then we'd have to deal with even more of the "10-4 good buddy" mentality. Yeah, on second thought, like the infamous 435, in L.A., let 'em have their place to play, and leave the rest of us, in peace.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Jan 30, 2014, at 9:38, el34guy@aol.com wrote:
>
>
>
> Hey Joe,
>
> I actually do remember S&H green stamps as a kid. My parents collected them. Doesn't a ham guy have the deck for sale(KF2C)? That' s what I thought was interesting.
>
> Mark
> W0NCL
>
>
> -----Original Message-----
> From: Joe - W7RKN <w7rkn.7@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>

> Sent: Thu, Jan 30, 2014 9:31 am
> Subject: Re: [DrakeRadio] L4B with four tubes!
>
> □
>
>
> No Mark...
>
> As it is a CB powerhouse RF deck, the correct terminology is, 300 green stamps! Get that right! 10-4 good buddy???
>
> <<GRIN>>
>
> Joe - W7RKN
> ----- Original Message -----
> From: el34guy@...
> Subject: Re: [DrakeRadio] L4B with four tubes!
>
> It actually has a bid right now of 300 bux!!!!
>
> 73
> Mark
> W0NCL
>
>
>
>
>
>

18435. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:19:55 UTC
From: Steve Wedge
Topic: 18417 Message: 18435

Mainly because I figured I'd run afoul of someone, I guess.

I guess I've been silly, though. $350 plus shipping. I'll post prices from now on unless Garey says otherwise

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Al Parker
Sent: Thursday, January 30, 2014 8:49 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS - Nice TR-4C

No problem, Bob. I've always wondered why Steve doesn't post his price
with his for sale "notice". We all are interested in knowing just what
the market is these days.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/29/2014 11:12 PM, Robert Logan wrote:
> Sorry for broadcasting my question and taking up BW. Hit the wrong button.
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 10:07 PM, Robert Logan <bob.logan47@...
> <mailto:bob.logan47@...>> wrote:
>
> Steve, price-wise? Bob, NZ5A
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...
> <mailto:w1es1982@...>> wrote:
>
> TR-4C is available. Got to start working on the older ones now.
> I did the alignment today and this rig was not needing much other than a
> slight adjustment here and there.

> 200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
> Receiver's just the way it should be!
> Clean chassis. This one was so well-kept that I didn't need to do
> anything but blow some loose dust off. Small scratch on upper-right of
> front panel and the VOX pot has a side worn off. Has the correct mic
> jack. No mods and no NB. I'd say this is an 8/10.
> Contact me off-list. Pics will be available as soon as it gets warm
> enough for me to go out to the shed again (Friday).
> 73,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom
> appended thereto.
>
>

[Non-text portions of this message have been removed]

18436. RE: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:25:19 UTC
From: Doug Coffman
Topic: 18348 Message: 18436

I did not look closely, it could be but unlikely, a 6M monoband chassis. Regardless, two tubes with the proper power supply reaches legal limit. I suppose one could run four tubes at legal limt with head room for high duty cycles. It’s a moot point anyhow.

What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios. They can do what they want on 11M and I really don’t care; it is aggravating when they bring it up to 10M.

73, Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of el34guy@...
Sent: Thursday, January 30, 2014 10:38 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

Hey Joe,

I actually do remember S&H green stamps as a kid. My parents collected them. Doesn't a ham guy have the deck for sale(KF2C)? That' s what I thought was interesting.

Mark

W0NCL

-----Original Message-----
From: Joe - W7RKN <w7rkn.7@... <mailto:w7rkn.7@...> >
To: DrakeRadio <DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com> >
Sent: Thu, Jan 30, 2014 9:31 am
Subject: Re: [DrakeRadio] L4B with four tubes!

☐

No Mark...

As it is a CB powerhouse RF deck, the correct terminology is, 300 green stamps! Get that right! 10-4 good buddy???

<<GRIN>>

Joe - W7RKN

----- Original Message -----

From: el34guy@... <mailto:el34guy@...>

Subject: Re: [DrakeRadio] L4B with four tubes!

It actually has a bid right now of 300 bux!!!!

73

Mark

W0NCL

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18437. RE: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:29:01 UTC
From: Doug Coffman
Topic: 18348 Message: 18437

Dan,

I know several guys with the ICOM 7800’s and Yaesu Mark V field radios that operate 11M only. They do not have tickets and operate CH38 USB. What a waste of good and expensive equipment!!!

We can all bash 11M but I have hear a number of conversations on 80M and 20M that rivals the best of the junk on 11M. I just wonder how these people conduct themselves in their work and family lives!

73,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Dan Galligan
Sent: Thursday, January 30, 2014 11:15 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

LOTS of ham licensees, are big time good buddies, on the CB. I never understood that. I ran a CB, from just before the mid-70's craze hit, into the 80's. Then, I got my ticket, and never looked back. But, I can say, that while I was driving truck, cross country, I did "marvel" at the junky radios, the CB crowd paid HIGH dollars for, then dumped even more money into "enhancing" them, with gadgets, that did no good. For half the money those guys would spend, I ran a Kenwood TS-570S, as my truck mobile. Even then, some of those guys ran such gawd-awful radios, and junky, class C amplifiers, that I would get interference from their transmissions on 11M, while I was trying to talk on 40.

Look, I get the fun of talking local, to a wider variety, of folks. I have a GMRS license, and have a couple of MURS radios, for talking with my wife, while I am out and about, on our acreage. But the stuff they do on CB, simply amazes me. For half the money, they could have ten times the radio, and infinite options, on various bands, if they'd just study, and get a license. But, then we'd have to deal with even more of the "10-4 good buddy" mentality. Yeah, on second thought, like the infamous 435, in L.A., let 'em have their place to play, and leave the rest of us, in peace.

73,

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Evening Shade, OK

EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".

Samuel Adams-Patriot and Brewer

Sent from my iPad.

On Jan 30, 2014, at 9:38, el34guy@... <mailto:el34guy@...> wrote:

Hey Joe,

I actually do remember S&H green stamps as a kid. My parents collected them. Doesn't a ham guy have the deck for sale(KF2C)? That' s what I thought was interesting.

Mark

W0NCL

-----Original Message-----
From: Joe - W7RKN <w7rkn.7@... <mailto:w7rkn.7@...> >
To: DrakeRadio <DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com> >
Sent: Thu, Jan 30, 2014 9:31 am
Subject: Re: [DrakeRadio] L4B with four tubes!

□

No Mark...

As it is a CB powerhouse RF deck, the correct terminology is, 300 green stamps! Get that right! 10-4 good buddy???

<<GRIN>>

Joe - W7RKN

----- Original Message -----

From: el34guy@... <mailto:el34guy@...>

Subject: Re: [DrakeRadio] L4B with four tubes!

It actually has a bid right now of 300 bux!!!!

73

Mark

W0NCL

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Quick and Simple Internet Access
http://www.pdswireless.com

18438. RE: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:31:08 UTC
From: Doug Coffman
Topic: 18417 Message: 18438

Steve,

I do not see a problem with it. I personally like to see the prices so I know what to value the gear that I fix and sell.

I suppose if the reflector turned into a giant marketplace then it would be an annoyance.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Steve Wedge
Sent: Thursday, January 30, 2014 11:20 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS - Nice TR-4C

Mainly because I figured I'd run afoul of someone, I guess.

I guess I've been silly, though. $350 plus shipping. I'll post prices from now on unless Garey says otherwise

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Al Parker
Sent: Thursday, January 30, 2014 8:49 AM
To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] FS - Nice TR-4C

No problem, Bob. I've always wondered why Steve doesn't post his price
with his for sale "notice". We all are interested in knowing just what
the market is these days.
73,

Al, W8UT
www.boatanchors.org <http://www.boatanchors.org>
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Ratty, to Mole

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> Clean chassis. This one was so well-kept that I didn't need to do
> anything but blow some loose dust off. Small scratch on upper-right of
> front panel and the VOX pot has a side worn off. Has the correct mic
> jack. No mods and no NB. I'd say this is an 8/10.
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>

[Non-text portions of this message have been removed]

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18439. Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 16:42:39 UTC
From: <kmx888@...>
Topic: 18439 Message: 18439

I have copied the note below from Ram Meters. What do you think about the slight difference in meter resistance and the idea in general?

Hi Kevin,

Thank you for the information below. The Jewell MS2T is no longer available. I tried to find a meter that was close in size and found the Yokogawa 251-2. I attached the dimensional sheet for your review.

The Jewell meter measures 3.15" x 2.73" and the panel cutout is 2.22".
The Yokogawa measures 3.12" x 2.66" and the panel cutout is 2.19"

The Jewell meter is a 3-stud mount and the Yokogawa is a 2-stud mount. Also, the resistance for the 251-2 at 200uADC is 121 ohms. If you think this will work as a suitable replacement then I would need a picture of the face of the meter so we can try to duplicate it.

Please let me know your thoughts.
Thank you and have a nice day,
Sally Cowell
Ram Meter, Inc.
800-446-4035 ext. 1811
scowell@rammeter.com
www.rammeter.com

18440. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 17:07:51 UTC
From: Garey Barrell
Topic: 18417 Message: 18440

Steve -

No problem posting prices for items offered for sale. I also have no problem with hams supplying the market with
specialized products for the community, 'within reason'. We don't want a 'for sale' reflector, but if someone has a
product or products of interest to many of us, an occasional 'announcement' is fine. Once a month maximum?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> Mainly because I figured I'd run afoul of someone, I guess.
>
> I guess I've been silly, though. $350 plus shipping. I'll post prices from now on unless Garey says otherwise
>
>

18441. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 17:18:27 UTC
From: Robert Logan
Topic: 18417 Message: 18441

I didn't mean to put you in a jam. I have seen prices listed tho.

Sorry for any inconvenience. Thanks.

Bob

Sent from my iPhone

On Jan 30, 2014, at 10:19 AM, "Steve Wedge" <w1es1982@...> wrote:

Mainly because I figured I'd run afoul of someone, I guess.

I guess I've been silly, though. $350 plus shipping. I'll post prices from now on unless Garey says otherwise

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Al Parker
Sent: Thursday, January 30, 2014 8:49 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS - Nice TR-4C

No problem, Bob. I've always wondered why Steve doesn't post his price
with his for sale "notice". We all are interested in knowing just what
the market is these days.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/29/2014 11:12 PM, Robert Logan wrote:
> Sorry for broadcasting my question and taking up BW. Hit the wrong button.
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 10:07 PM, Robert Logan <bob.logan47@...
> <mailto:bob.logan47@...>> wrote:
>
> Steve, price-wise? Bob, NZ5A

>
> Sent from my iPhone
>
> On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...
> <mailto:w1es1982@....com>> wrote:
>
> TR-4C is available. Got to start working on the older ones now.
> I did the alignment today and this rig was not needing much other than a
> slight adjustment here and there.
> 200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
> Receiver's just the way it should be!
> Clean chassis. This one was so well-kept that I didn't need to do
> anything but blow some loose dust off. Small scratch on upper-right of
> front panel and the VOX pot has a side worn off. Has the correct mic
> jack. No mods and no NB. I'd say this is an 8/10.
> Contact me off-list. Pics will be available as soon as it gets warm
> enough for me to go out to the shed again (Friday).
> 73,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom
> appended thereto.
>
>

[Non-text portions of this message have been removed]

18442. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 17:19:21 UTC
From: Garey Barrell
Topic: 18439 Message: 18442

Kevin -

The new meter isn't big enough to cover the panel, which may or may not be significant.

A new scale.

The meter is connected as a voltmeter with a series limiting resistor, so the internal resistance isn't critical, within
reason.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kmx888@... wrote:
>
>
> I have copied the note below from Ram Meters. What do you think about the slight difference in meter resistance and
> the idea in general?
>
> Hi Kevin,
> Thank you for the information below. The Jewell MS2T is no longer available. I tried to find a meter that was close
> in size and found the Yokogawa 251-2. I attached the dimensional sheet for your review.
> The Jewell meter measures 3.15" x 2.73" and the panel cutout is 2.22".
> The Yokogawa measures 3.12" x 2.66" and the panel cutout is 2.19"
> The Jewell meter is a 3-stud mount and the Yokogawa is a 2-stud mount. Also, the resistance for the 251-2 at 200uADC
> is 121 ohms. If you think this will work as a suitable replacement then I would need a picture of the face of the
> meter so we can try to duplicate it.
> Please let me know your thoughts.
> Thank you and have a nice day,
> Sally Cowell
> Ram Meter, Inc.
> 800-446-4035 ext. 1811
> scowell@...
> www.rammeter.com
>

18443. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 18:03:21 UTC
From: Richard Knoppow
Topic: 18348 Message: 18443

----- Original Message -----
From: "Doug Coffman" <dcoffman@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, January 30, 2014 8:25 AM
Subject: RE: [DrakeRadio] L4B with four tubes!

I did not look closely, it could be but unlikely, a 6M monoband chassis. Regardless, two tubes with the proper power supply reaches legal limit. I suppose one could run four tubes at legal limt with head room for high duty cycles. It’s a moot point anyhow.

What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios. They can do what they want on 11M and I really don’t care; it is aggravating when they bring it up to 10M.

73, Doug – N9XTF

The real problem is that there is absolutely no enforcement. The CB bands are nearly impossible to police but the ham bands are not. I hear stuff every day that could result in large fines or even jail time. The same folks doing it week after week. Of course, when I first went on the air in the 1960s we had exactly the same kind of jerks and no enforcement but just not as many of them. 11 meter CB was one of the world's great blunders.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18444. RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 18:29:15 UTC
From: <f6dfz@...>
Topic: 18413 Message: 18444

Hi Henry and the group,

Interesting tip, we shall wait for results.
But I notice that the feedback is not a burst, but can be permanent.
So it's unlikely that the charge of C1151 is the culprit.

I frequently thought of a way to more efficiently mute the TR7 during SSB transmit, but, with my small filter,
I found an outboard solution good enough to suppress the problem.

Georges

18445. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 19:10:08 UTC
From: Leon Zebrick
Topic: 18413 Message: 18445

George's- what is your outboard solution? I must have missed your post on that. Thanks.

Sent from my iPhone

On Jan 30, 2014, at 12:29 PM, <f6dfz@yahoo.com> wrote:

> Hi Henry and the group,
>
>
> Interesting tip, we shall wait for results.
> But I notice that the feedback is not a burst, but can be permanent.
> So it's unlikely that the charge of C1151 is the culprit.
>
> I frequently thought of a way to more efficiently mute the TR7 during SSB transmit, but, with my small filter,
> I found an outboard solution good enough to suppress the problem.
>
> Georges
>
>
>

18446. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 19:44:40 UTC
From: <f6dfz@...>
Topic: 18413 Message: 18446

Hi Leon,

I posted the schematic diagram in my photo album.

Regards

Georges

18447. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 20:18:50 UTC
From: Mike
Topic: 18439 Message: 18447

Did he give you a price for the new meter?

Mike wb8vge

Sent from my iPhone

> On Jan 30, 2014, at 11:42 AM, <kmx888@...> wrote:
>
> I have copied the note below from Ram Meters. What do you think about the slight difference in meter resistance and the idea in general?
>
>
> Hi Kevin,
>
> Thank you for the information below. The Jewell MS2T is no longer available. I tried to find a meter that was close in size and found the Yokogawa 251-2. I attached the dimensional sheet for your review.
>
> The Jewell meter measures 3.15" x 2.73" and the panel cutout is 2.22".
> The Yokogawa measures 3.12" x 2.66" and the panel cutout is 2.19"
>
> The Jewell meter is a 3-stud mount and the Yokogawa is a 2-stud mount. Also, the resistance for the 251-2 at 200uADC is 121 ohms. If you think this will work as a suitable replacement then I would need a picture of the face of the meter so we can try to duplicate it.
>
> Please let me know your thoughts.
> Thank you and have a nice day,
> Sally Cowell
> Ram Meter, Inc.
> 800-446-4035 ext. 1811
> scowell@...
> www.rammeter.com
>

18448. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 22:17:18 UTC
From: Steve Wedge
Topic: 18417 Message: 18448

I try to keep the posts down but understand that lots of folks are seeking. In fact, I just sold a 2-B off eBay to someone who frequents this reflector.

But I am aware of the need to keep commerce to a minimum here. Feel free to come in and tell me if I go over any lines.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, January 30, 2014 12:07 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS - Nice TR-4C

Steve -

No problem posting prices for items offered for sale. I also have no problem with hams supplying the market with
specialized products for the community, 'within reason'. We don't want a 'for sale' reflector, but if someone has a
product or products of interest to many of us, an occasional 'announcement' is fine. Once a month maximum?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> Mainly because I figured I'd run afoul of someone, I guess.
>
> I guess I've been silly, though. $350 plus shipping. I'll post prices from now on unless Garey says otherwise
>
>

18449. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-30 23:35:41 UTC
From: <kmx888@...>
Topic: 18439 Message: 18449

I should have the price tomorrow. I hope it isn't too bad. It is going to kill me to have to ruin a cheaper W4 by robbing the meter.
Kevin
KD0ILM

18450. Re: [DrakeRadio] FS - Nice TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:09:59 UTC
From: Robert Logan
Topic: 18417 Message: 18450

Well, Al, I'm just interested in whether my retiree budget can stand it! Bob

Sent from my iPhone

On Jan 30, 2014, at 7:49 AM, Al Parker <anchor@ec.rr.com> wrote:

No problem, Bob. I've always wondered why Steve doesn't post his price
with his for sale "notice". We all are interested in knowing just what
the market is these days.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 1/29/2014 11:12 PM, Robert Logan wrote:
> Sorry for broadcasting my question and taking up BW. Hit the wrong button.
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 10:07 PM, Robert Logan <bob.logan47@...
> <mailto:bob.logan47@yahoo.com>> wrote:
>
> Steve, price-wise? Bob, NZ5A
>
> Sent from my iPhone
>
> On Jan 29, 2014, at 8:53 PM, "Steve Wedge" <w1es1982@...
> <mailto:w1es1982@...>> wrote:
>
> TR-4C is available. Got to start working on the older ones now.
> I did the alignment today and this rig was not needing much other than a
> slight adjustment here and there.
> 200W out on 80 & 40, 150W on 20 and 15 and about 120W on 10.
> Receiver's just the way it should be!
> Clean chassis. This one was so well-kept that I didn't need to do
> anything but blow some loose dust off. Small scratch on upper-right of
> front panel and the VOX pot has a side worn off. Has the correct mic
> jack. No mods and no NB. I'd say this is an 8/10.
> Contact me off-list. Pics will be available as soon as it gets warm
> enough for me to go out to the shed again (Friday).
> 73,

> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom
> appended thereto.
>
>

18451. RE: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:12:40 UTC
From: Jim Shorney
Topic: 18348 Message: 18451

That's when I turn on the amplifier and call CQ on top of them.

73

-Jim
NU0C

On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:

>What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Â They can do what they want on 11M and I really donâ□□t care; it is aggravating when they bring it up to 10M.

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18452. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:23:38 UTC
From: William Houghton
Topic: 18348 Message: 18452

Isn't that against the rules... to willfully interfere with another station???

From: Jim Shorney <jshorney@inebraska.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, January 30, 2014 6:12 PM
Subject: RE: [DrakeRadio] L4B with four tubes!

That's when I turn on the amplifier and call CQ on top of them.

73

-Jim
NU0C

On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:

>What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Â They can do what they want on 11M and I really donâ€™t care; it is aggravating when they bring it up to 10M.

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18453. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:33:27 UTC
From: <gbeat5@...>
Topic: 18439 Message: 18453

I have a spare Drake W-4 meter scale that I could ship to RAM Meter, if that would help.

w9gb

18454. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:33:28 UTC
From: Dan Galligan
Topic: 18348 Message: 18454

Actually, I believe it's only illegal to do so to a licensed amateur station. If the other station, is a CB'er, on an amateur band, obviously unlicensed, I don't believe that is considered illegal.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Jan 30, 2014, at 20:23, William Houghton <rdrbill@pacbell.net> wrote:
>
>
>
> Isn't that against the rules... to willfully interfere with another station???
>
> From: Jim Shorney <jshorney@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, January 30, 2014 6:12 PM
> Subject: RE: [DrakeRadio] L4B with four tubes!
>
>
> That's when I turn on the amplifier and call CQ on top of them.
>
> 73
>
> -Jim
> NU0C
>
> On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:
>
> >What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Â They can do what they want on 11M and I really donâ€™t care; it is aggravating when they bring it up to 10M.
>
> --
>

> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>
>
>
>

18455. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:35:36 UTC
From: Jim Shorney
Topic: 18348 Message: 18455

All I'm doing is transmitting on top of a noise source.... :D

73

-Jim
NU0C

On Thu, 30 Jan 2014 18:23:38 -0800 (PST), William Houghton wrote:

>Isn't that against the rules... to willfully interfere with another station???
>
>
>_____
> From: Jim Shorney <jshorney@inebraska.com>
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Sent: Thursday, January 30, 2014 6:12 PM
>Subject: RE: [DrakeRadio] L4B with four tubes!
>
>
>
>Â
>
>That's when I turn on the amplifier and call CQ on top of them.
>
>73
>
>-Jim
>NU0C
>
>On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:
>
>>What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Ã☐ They can do what they want on 11M and I really donÃ¢â☐¬â☐¢t care; it is aggravating when they bring it up to 10M.
>
>--
>
>"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.

TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18456. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:45:25 UTC
From: William Houghton
Topic: 18348 Message: 18456

On the ARRL website it says that the FCC rules prohibit willful interference with ANY radio communication or signal:

"Section 97.101(d) of the Commission's Rules prohibits amateur operators from willfully or maliciously interfering with or causing interference to any radio communication or signal. 47 C.F.R. § 97.101(d). "

Of course on 10m you could always say you never heard them .....

From: Jim Shorney <jshorney@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, January 30, 2014 6:35 PM
Subject: Re: [DrakeRadio] L4B with four tubes!

All I'm doing is transmitting on top of a noise source.... :D

73

-Jim
NU0C

On Thu, 30 Jan 2014 18:23:38 -0800 (PST), William Houghton wrote:

>Isn't that against the rules... to willfully interfere with another station???
>
>
>---
> From: Jim Shorney <jshorney@...>
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Sent: Thursday, January 30, 2014 6:12 PM
>Subject: RE: [DrakeRadio] L4B with four tubes!
>
>
>
>Â
>
>That's when I turn on the amplifier and call CQ on top of them.
>
>73
>
>-Jim
>NU0C
>
>On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:
>
>>What is irritating is the fact that I was working DX on 10M this morning and there were

at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Ã, They can do what they want on 11M and I really donÃ¢â‚¬â„¢t care; it is aggravating when they bring it up to 10M.
>
>--
>
>"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
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>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18457. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:51:39 UTC
From: Jim Shorney
Topic: 18413 Message: 18457

I tend to agree. The aggregate time constant of the circuit with a 22uF capacitor is under 5 seconds. Unless you are running a contest or calling a pileup, the feedback would cease after a short time of keydown.

An argument for increasing the value of the capacitor is to improve decoupling and reduce IMD in the audio stage. Bob K9JU discovered that preamp stage has rather high IMD. I would rather have low IMD than not....

73

-Jim
NU0C

On 30 Jan 2014 10:29:15 -0800, f6dfz@... wrote:

>Interesting tip, we shall wait for results.
>But I notice that the feedback is not a burst, but can be permanent.
>So it's unlikely that the charge of C1151 is the culprit.

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18458. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 02:54:37 UTC
From: Jim Shorney
Topic: 18348 Message: 18458

Heard who? Since no one uses AM in that subband, I thought it was noise....

On Thu, 30 Jan 2014 18:45:25 -0800 (PST), William Houghton wrote:

>On the ARRL website it says that the FCC rules prohibit willful interference with ANY radio communication or signal:
>
>"Section 97.101(d) of the Commission's Rules prohibits amateur operators from willfully or maliciously interfering with or causing interference to any radio communication or signal. 47 C.F.R. Â§ 97.101(d).Â "
>
>Of course on 10m you could always say you never heard them .....
>
>
>_____
> From: Jim Shorney <jshorney@...>
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Sent: Thursday, January 30, 2014 6:35 PM
>Subject: Re: [DrakeRadio] L4B with four tubes!
>
>
>
>Â
>
>All I'm doing is transmitting on top of a noise source.... :D
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>73
>
>-Jim
>NU0C
>
>On Thu, 30 Jan 2014 18:23:38 -0800 (PST), William Houghton wrote:
>
>>Isn't that against the rules... to willfully interfere with another station???
>>
>>
>>_____
>> From: Jim Shorney <jshorney@...>
>>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>>Sent: Thursday, January 30, 2014 6:12 PM
>>Subject: RE: [DrakeRadio] L4B with four tubes!
>>
>>
>>
>>Ã□
>>

>>That's when I turn on the amplifier and call CQ on top of them.
>>
>>73
>>
>>-Jim
>>NU0C
>>
>>On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:
>>
>>>What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Ã□â□□ They can do what they want on 11M and I really donÃ□Â¢Ã¢â□□Â¬Ã¢â□□Â¢t care; it is aggravating when they bring it up to 10M.
>>
>>--
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>>
>>
>
>--
>Ham Radio NU0C
>Lincoln, Nebraska, U.S.S.A.
>TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>
>"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
>HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
>http://incolor.inetnebr.com/jshorney
>http://www.nebraskaghosts.org
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18459. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 03:00:00 UTC
From: Steve Wedge
Topic: 18348 Message: 18459

Actually, that's not true. You can be prosecuted for intentional interference, regardless of the legality of the other party's transmissions.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Dan Galligan
Sent: Thursday, January 30, 2014 9:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

Actually, I believe it's only illegal to do so to a licensed amateur station. If the other station, is a CB'er, on an amateur band, obviously unlicensed, I don't believe that is considered illegal.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

On Jan 30, 2014, at 20:23, William Houghton <rdrbill@pacbell.net> wrote:

Isn't that against the rules... to willfully interfere with another station???

From: Jim Shorney <jshorney@inebraska.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, January 30, 2014 6:12 PM
Subject: RE: [DrakeRadio] L4B with four tubes!

That's when I turn on the amplifier and call CQ on top of them.

73

-Jim
NU0C

On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:

>What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Â They can do what they want on 11M and I really donâ€™t care; it is aggravating when they bring it up to 10M.

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18460. Re: [DrakeRadio] L4B with four tubes!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 03:48:31 UTC
From: Dan Galligan
Topic: 18348 Message: 18460

That's good to know. Thanks Bill and Steve. Obviously, I was mistaken!

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Jan 30, 2014, at 21:00, Steve Wedge <w1es1982@...> wrote:
>
>
>
> Actually, that's not true. You can be prosecuted for intentional interference, regardless of the legality of the other party's transmissions.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: Dan Galligan
> Sent: Thursday, January 30, 2014 9:33 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] L4B with four tubes!
>
> Actually, I believe it's only illegal to do so to a licensed amateur station. If the other station, is a CB'er, on an amateur band, obviously unlicensed, I don't believe that is considered illegal.
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no

>
> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
> Samuel Adams-Patriot and Brewer
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>> From: Jim Shorney <jshorney@...>
>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>> Sent: Thursday, January 30, 2014 6:12 PM
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>>
>>
>>
>> That's when I turn on the amplifier and call CQ on top of them.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Thu, 30 Jan 2014 11:25:19 -0500, Doug Coffman wrote:
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>> >What is irritating is the fact that I was working DX on 10M this morning and there were at least 4 stations, on different frequencies, operating AM and were CB operators with export radios.Â They can do what they want on 11M and I really donâ€™t care; it is aggravating when they bring it up to 10M.
>>
>> --
>>
>> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

18461. Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 03:59:51 UTC
From: <markhilliard@...>
Topic: 18461 Message: 18461

Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and couldn't find any messages.

Thanks

Mark

18462. Re: [DrakeRadio] Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 12:51:06 UTC
From: Steve Wedge
Topic: 18461 Message: 18462

Make sure the keyer can key over -110V. Most do, but I'm not familiar with this one.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Jan 30, 2014, at 10:59 PM, <markhilliard@...> wrote:
>
> Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and couldn't find any messages.
>
> Thanks
>
> Mark
>
>

18463. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 14:17:02 UTC
From: Leon Zebrick
Topic: 18413 Message: 18463

In my case I get about one second of feedback that goes out over the air at about 40 W pep. That's if my SP75 is on and my mic is anywhere near the remote speaker. My gain is set to reliably break the SP75 noise gate and modulate the rig with the right amount of ALC. Mic is a Shure 444. So if preamp power does not bleed off in less than one second, I'm thinking the cap mod won't help. Perhaps voltage bleed down will be fast enough? After that short feedback burst I can still hear garble in the speaker, but it's low and I can live with it. Just want to stop announcing my key up. Tried vox but not enough vox gain - project for another day.

Sent from my iPhone

On Jan 30, 2014, at 8:51 PM, "Jim Shorney" <jshorney@...> wrote:

>
> I tend to agree. The aggregate time constant of the circuit with a 22uF
> capacitor is under 5 seconds. Unless you are running a contest or calling a
> pileup, the feedback would cease after a short time of keydown.
>
> An argument for increasing the value of the capacitor is to improve decoupling
> and reduce IMD in the audio stage. Bob K9JU discovered that preamp stage has
> rather high IMD. I would rather have low IMD than not....
>
> 73
>
> -Jim
> NU0C
>
> On 30 Jan 2014 10:29:15 -0800, f6dfz@... wrote:
>
> >Interesting tip, we shall wait for results.
> >But I notice that the feedback is not a burst, but can be permanent.
> >So it's unlikely that the charge of C1151 is the culprit.
>
> --
> The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

18464. Re: [DrakeRadio] Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 15:35:10 UTC
From: Garey Barrell
Topic: 18461 Message: 18464

Mark -

I'm not familiar with that keyer. The T-4X is a negative key voltage of about -60 VDC, and takes only a mA or so to key.

As long as the output is capable of keying a negative voltage, should be no problem.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

markhilliard@... wrote:
>
>
> Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and
> couldn't find any messages.
>
> Thanks
>
> Mark
>
>

18465. Re: [DrakeRadio] Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 16:02:47 UTC
From: Garey Barrell
Topic: 18461 Message: 18465

Steve -

Why so high??? ~60 V is as high as it'll see. ??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> Make sure the keyer can key over -110V. Most do, but I'm not familiar with this one.
>
> Steve Wedge, W1ES/4
>
> Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)
>
> On Jan 30, 2014, at 10:59 PM, <markhilliard@... <mailto:markhilliard@...>> wrote:
>
>> Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and
>> couldn't find any messages.
>>
>> Thanks
>>
>> Mark
>>
>
>
>

18466. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 16:58:14 UTC
From: <f6dfz@...>
Topic: 18413 Message: 18466

Hi to the group,

I get also great improvement about feedback with a double line between the TR7A power plug (heavy gauge for the PA, lighter for other stages) and with clean contacts on this same power plug (I use Deposit). I also use some piece of plastic cards inside this power plug to get tighter contacts.

These simple actions have a great effect on feedback.

Georges F6DFZ
Le

18467. Re: [DrakeRadio] Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 21:52:08 UTC
From: Steve Wedge
Topic: 18461 Message: 18467

I couldn't remember the exact voltage, so figured allowing for -110 would be sufficient. Feels just as annoying when it bites me...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Friday, January 31, 2014 10:35 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Hamgadget Masterkeyer

Mark -

I'm not familiar with that keyer. The T-4X is a negative key voltage of about -60 VDC, and takes only a mA or so to key.

As long as the output is capable of keying a negative voltage, should be no problem.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

markhilliard@... wrote:
>
>
> Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and
> couldn't find any messages.
>
> Thanks
>
> Mark
>
>

18468. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 22:39:47 UTC
From: Jim Shorney
Topic: 18413 Message: 18468

Not sure what is going on there. I've never seen that behaviour from my SP75 and TR-7, and I've used a number of different mics and speakers with this combo. It does sound more like RF feedback to me. You might check your 2nd IF/Audio board, there have been some revisions to it over the years in the area of T/R switching. I have detailed some of that here:

http://radiojim.exofire.net/pages/TR7_2IFA.html

On another note, I recommend running the level with the SP-75 at just below the point where the ALC light begins to flicker. This will give you the cleanest possible signal. The logic for staying out of ALC is based on information found here:

http://www.sm5bsz.com/dynrange/alc.htm

You should also be speaking no more than about inch away from your mic. The farther away you get, the more gain you need and the lower your transmit S/N ratio becomes.

73

-Jim
NU0C

On Fri, 31 Jan 2014 08:17:02 -0600, Leon Zebrick wrote:

>In my case I get about one second of feedback that goes out over the air at about 40 W pep. That's if my SP75 is on and my mic is anywhere near the remote speaker. My gain is set to reliably break the SP75 noise gate and modulate the rig with the right amount of ALC. Mic is a Shure 444. So if preamp power does not bleed off in less than one second, I'm thinking the cap mod won't help. Perhaps voltage bleed down will be fast enough? After that short feedback burst I can still hear garble in the speaker, but it's low and I can live with it. Just want to stop announcing my key up. Tried vox but not enough vox gain - project for another day.
>
>Sent from my iPhone
>
>On Jan 30, 2014, at 8:51 PM, "Jim Shorney" <jshorney@...> wrote:
>
>>
>> I tend to agree. The aggregate time constant of the circuit with a 22uF
>> capacitor is under 5 seconds. Unless you are running a contest or calling a
>> pileup, the feedback would cease after a short time of keydown.
>>
>> An argument for increasing the value of the capacitor is to improve decoupling
>> and reduce IMD in the audio stage. Bob K9JU discovered that preamp stage has
>> rather high IMD. I would rather have low IMD than not....

>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On 30 Jan 2014 10:29:15 -0800, f6dfz@... wrote:
>>
>> >Interesting tip, we shall wait for results.
>> >But I notice that the feedback is not a burst, but can be permanent.
>> >So it's unlikely that the charge of C1151 is the culprit.

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18469. TR-7 Volume not lowering all the way

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 22:45:04 UTC
From: <wd5acp@...>
Topic: 18469 Message: 18469

Hello all - new to me TR-7. I did a search here but missed anyone having this issue... my TR-7 audio does volume control does not reduce the volume all the way. Even when turned down to minimum, there's still low audio from the speaker. I can decrease the RF gain and effectively silence it, but if the RG gain is up and there's any noise or signals on the frequency it is clearly audible.

Not a show stopper, and probably not worth tearing the radio open to fix it, but just thought i'd ask if anyone has had this issue before.

The volume control works fine in every other respect. Full audio when turned up. No noise, not scratchy. It was shot clean with a good dose of DeOxit5 recently and that didn't help.

Thanks!

18470. Re: [DrakeRadio] Hamgadget Masterkeyer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 22:46:55 UTC
From: Mike
Topic: 18461 Message: 18470

Guys.

A few years ago I came out with a small ,about the size if a quarter, pcb that would key the grid block keying on the drakes or the cathode keying for some of the other rig. Used an optical coupler to connect a keyer to the rig. I used a cw keyboard connected to my drake 2NT. Great fun!

I may have one or two floating around the shack. I'll look.

Mike wb8vge

Sent from my iPhone

> On Jan 31, 2014, at 4:52 PM, "Steve Wedge" <w1es1982@triad.rr.com> wrote:
>
> I couldn't remember the exact voltage, so figured allowing for -110 would be sufficient. Feels just as annoying when it bites me...
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: Garey Barrell
> Sent: Friday, January 31, 2014 10:35 AM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Hamgadget Masterkeyer
>
>
> Mark -
>
> I'm not familiar with that keyer. The T-4X is a negative key voltage of about -60 VDC, and takes only a mA or so to key.
>
> As long as the output is capable of keying a negative voltage, should be no problem.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> markhilliard@... wrote:

> >
> >
> > Hello, anyone know if there are any issues using a Hamgadgets Masterkeyer with a T-4XB. Did a search of the group and
> > couldn't find any messages.
> >
> > Thanks
> >
> > Mark
> >
> >
>
>
>

18471. Re: [DrakeRadio] TR-7 Volume not lowering all the way

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 22:47:04 UTC
From: Evan Rolek
Topic: 18469 Message: 18471

This is a known, and normal condition. Because of the design of the taper, the wiper does not go to zero resistence because it has been advance several degrees due to the on/off switch being activated.

73,

Evan, K9SQG

-----Original Message-----
From: wd5acp <wd5acp@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Jan 31, 2014 5:45 pm
Subject: [DrakeRadio] TR-7 Volume not lowering all the way

Hello all - new to me TR-7. I did a search here but missed anyone having this issue... my TR-7 audio does volume control does not reduce the volume all the way. Even when turned down to minimum, there's still low audio from the speaker. I can decrease the RF gain and effectively silence it, but if the RG gain is up and there's any noise or signals on the frequency it is clearly audible.

Not a show stopper, and probably not worth tearing the radio open to fix it, but just thought i'd ask if anyone has had this issue before.

The volume control works fine in every other respect. Full audio when turned up. No noise, not scratchy. It was shot clean with a good dose of DeOxit5 recently and that didn't help.

Thanks!

18472. Re: [DrakeRadio] TR-7 Volume not lowering all the way

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-01-31 23:31:18 UTC
From: <wd5acp@...>
Topic: 18469 Message: 18472

Much thanks - guess it's not a bug.. it's a feature!

18473. L7 linear problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 00:06:16 UTC
From: <g3vkw@...>
Topic: 18473 Message: 18473

Hi Guys,
A friend of mine G4ALH has for the 3rd time had a Failure with the 50watt Bleeder resistors in the PSU.
I have a L4B, and touch wood, I have never had a problem with them.
Is this an issue with the PSU's or an isolated case.
We are wondering if there is something else that maybe causing this problem.
Any idea's??
73
Keith G3VKW

18474. Re: [DrakeRadio] L7 linear problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 01:32:07 UTC
From: Evan Rolek
Topic: 18473 Message: 18474

Keith,

Having serviced L4, L4B, and L7 amplifiers, and remembering they can be 30-40 years old, I have found the failure rate of those resistors to be around 60-70%. While that might seem high, remember the age and the variability of the operating environment. When those resistors are replaced, and both should be done at the same time, the 5 K 7 watt resistor on the underside should also be replaced with a 20 watt equivalent. To me, a large contributing factor in addition to age, is the heat within the power supply. In rare instances, there might be a flashover to ground between the end region of the resistor(s) and the triangular metal mounting "flanges"; the through bolt design doesn't seem to be prone to the arc-over and one can always switch to epoxy-fiberglass triangles for mounting when in doubt. Hence, I either use and internal fan (lots of work) or an external fan or fans. What works well is a 220 v fan that is selected on the basis of starting and running reliably one 110 vac. Then, with a thin rubber foot under each corner, you get some cooling (by pulling air OUT) and it is virtually silent. Based upon my measurements with my non-contact IR thermometer, such an arrangement results in a case temperature drop of 30 deg F.

I'm sure there are some experts out there that can give you better advice and better explanation than the above so let's all share and we can all learn.

73,

Evan, K9SQG

-----Original Message-----
From: g3vkw <g3vkw@btconnect.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Jan 31, 2014 7:06 pm
Subject: [DrakeRadio] L7 linear problems

Hi Guys,
A friend of mine G4ALH has for the 3rd time had a Failure with the 50watt Bleeder resistors in the PSU.
I have a L4B, and touch wood, I have never had a problem with them.
Is this an issue with the PSU's or an isolated case.
We are wondering if there is something else that maybe causing this problem.
Any idea's??
73
Keith G3VKW

18475. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 02:58:22 UTC
From: Jim Shorney
Topic: 18413 Message: 18475

Split rail power feed is perhaps the best kept secret of the TR-7. It's a great idea from an engineerig standpoint, but almost no one talks about it. GW4ALG mentions it on his mods page, and I write about it occasionally only to usually be met with thundering silence.

I've done it with both a "generic" power cable and as a retrofit to a PS-7 and am very happy with the results. This radio is designed to produce 150 Watts PEP or CW output with finals that are 50% efficient at best, which means the peak power draw can exceed 300 Watts. You can do the math. I have seen some pretty wimpy after-market generic cables on the market. I don't think I have seen one yet that I would buy. The PS-7 stock cable seems adequate for the high current rail. I used primary wire from a GE Mastr II harness, the stuff they use to trunk-mount 100W FM mobile radios, for the generic cable. I don't know what guage it is, but it's robust. No need to skimp on the low current rail either, use at least #14. You should see little or no lamp dimming from zero to full power with a proper cable.

73

-Jim
NU0C

On 31 Jan 2014 08:58:14 -0800, f6dfz@... wrote:

>Hi to the group,
>
> I get also great improvement about feedback with a double line between the TR7A power plug (heavy gauge for the PA, lighter for other stages) and with clean contacts on this same power plug (I use Deposit). I also use some piece of plastic cards inside this power plug to get tighter contacts.
>
> These simple actions have a great effect on feedback.
>
>
> Georges F6DFZ
> Le

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18476. Re: [DrakeRadio] L7 linear problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 03:28:28 UTC
From: Garey Barrell
Topic: 18473 Message: 18476

Keith -

Evan (as usual) has the right info! Heat is the killer and a simple (silent) fan with rubber feet set on top of the
cabinet over the center, _blowing UP_ does wonders for the supply longevity.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Evan Rolek wrote:
>
>
> Keith,
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> Having serviced L4, L4B, and L7 amplifiers, and remembering they can be 30-40 years old, I have found the failure rate
> of those resistors to be around 60-70%. While that might seem high, remember the age and the variability of the
> operating environment. When those resistors are replaced, and both should be done at the same time, the 5 K 7 watt
> resistor on the underside should also be replaced with a 20 watt equivalent. To me, a large contributing factor in
> addition to age, is the heat within the power supply. In rare instances, there might be a flashover to ground between
> the end region of the resistor(s) and the triangular metal mounting "flanges"; the through bolt design doesn't seem to
> be prone to the arc-over and one can always switch to epoxy-fiberglass triangles for mounting when in doubt. Hence, I
> either use and internal fan (lots of work) or an external fan or fans. What works well is a 220 v fan that is
> selected on the basis of starting and running reliably one 110 vac. Then, with a thin rubber foot under each corner,
> you get some cooling (by pulling air OUT) and it is virtually silent. Based upon my measurements with my non-contact
> IR thermometer, such an arrangement results in a case temperature drop of 30 deg F.
>
> I'm sure there are some experts out there that can give you better advice and better explanation than the above so
> let's all share and we can all learn.
>
> 73,
>

> Evan, K9SQG
>
>
> -----Original Message-----
> From: g3vkw <g3vkw@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Fri, Jan 31, 2014 7:06 pm
> Subject: [DrakeRadio] L7 linear problems
>
> Hi Guys,
> A friend of mine G4ALH has for the 3rd time had a Failure with the 50watt Bleeder
> resistors in the PSU.
> I have a L4B, and touch wood, I have never had a problem with them.
> Is this an issue with the PSU's or an isolated case.
> We are wondering if there is something else that maybe causing this problem.
> Any idea's??
> 73
> Keith G3VKW
>
>
>

18477. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 03:31:44 UTC
From: Leon Zebrick
Topic: 18413 Message: 18477

Problem solved. Did change the 22uf cap on IF/Audio to 4.7uf but that had minimal influence, will leave the 4.7 in for good measure. No degradation in audio quality noted. While the case was off I started playing around with a .01uf on speaker jack, etc. That didn't help, but while testing I noticed that with the mic near the PA, severe feedback occurred. I opened the Shure 444 and tacked that .01uf from the audio hot to gnd. and that did it! Thanks all.

On Friday, January 31, 2014 8:58 PM, Jim Shorney <jshorney@...> wrote:

Split rail power feed is perhaps the best kept secret of the TR-7. It's a great idea from an engineerig standpoint, but almost no one talks about it. GW4ALG mentions it on his mods page, and I write about it occasionally only to usually be met with thundering silence.

I've done it with both a "generic" power cable and as a retrofit to a PS-7 and am very happy with the results. This radio is designed to produce 150 Watts PEP or CW output with finals that are 50% efficient at best, which means the peak power draw can exceed 300 Watts. You can do the math. I have seen some pretty wimpy after-market generic cables on the market. I don't think I have seen one yet that I would buy. The PS-7 stock cable seems adequate for the high current rail. I used primary wire from a GE Mastr II harness, the stuff they use to trunk-mount 100W FM mobile radios, for the generic cable. I don't know what guage it is, but it's robust. No need to skimp on the low current rail either, use at least #14. You should see little or no lamp dimming from zero to full power with a proper cable.

73

-Jim
NU0C

On 31 Jan 2014 08:58:14 -0800, f6dfz@yahoo.com wrote:

>Hi to the group,
>
> I get also great improvement about feedback with a double line between the TR7A power plug (heavy gauge for the PA, lighter for other stages) and with clean contacts on this same power plug (I use Deposit). I also use some piece of plastic cards inside this power plug to get tighter contacts.
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> Georges F6DFZ
> Le

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
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"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
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HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18478. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 03:32:15 UTC
From: Garey Barrell
Topic: 18413 Message: 18478

The only thing better would be 'remote sensing'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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18479. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 03:50:55 UTC
From: Jim Shorney
Topic: 18413 Message: 18479

Yes, I actually thought of that.

73

-Jim
NU0C

On Fri, 31 Jan 2014 22:32:15 -0500, Garey Barrell wrote:

>The only thing better would be 'remote sensing'.
>
>73, Garey - K4OAH
>Glen Allen, VA
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>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18480. Re: [DrakeRadio] TR-7 Volume not lowering all the way

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 04:08:38 UTC
From: Joe Pyles
Topic: 18469 Message: 18480

I have fixed this on Several TR7s, The problem is
not that the switch causes the wiper to not go
all the way down. The problem is that the end of the carbon
goes out to the crimp on terminal on the pot and
the wiper doesn't stick out far enough and when
you turn the pot all the way down the is a small space between the
wiper and the terminal it only amounts to around
10 ohms but that is enough to allow sound to be
heard. To fix the problem I had to disassemble the pot and bend
the outer contact of the wiper out so it contacts
the outer edge of the carbon and when all the way
down it will it will be closer to the terminal and the resistance
will be 1 or 2 ohms. I worked for General
Aviation Electronics (Genave) in the 70s and we
had the same problem with the CTS pots that we used.

73, Joe KC9LAD

At 06:31 PM 1/31/2014, you wrote:
>
>
>Much thanks - guess it's not a bug.. it's a feature!
>

18481. Re: [DrakeRadio] RE: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 04:10:41 UTC
From: Jim Shorney
Topic: 18413 Message: 18481

That's interesting, because one of the mics I have used with no issues is the Sure 444B. I was getting severe RF feedback in my Telex aviation headset at one point. I discovered a disconnected cable shield inside the can. I suspect there may be more to your problem. The TR-7 and SP-75 may also suffer, to some degree or other, from the "Pin 1 Problem". I modified my pair for direct shield-to-chassis ground when I was troubleshooting the headset.

http://www.rane.com/note151.html

It may not seem obvious, but this can also apply to unbalanced mics on HF transmitters.

http://www.heilsound.com/amateur/tips/131-rfi-removal-from-audio-inputs

If you look at both the TR-7 and the SP-75 the mic cable ground/shield does not ground directly to the chassis, but through a length of wire to the circuit board.

Also worth noting is that some operators have reported that, despite what the SP-75 manual says, they need a ground strap from the SP-75 chassis to the TR-7 chassis.

73

-Jim
NU0C

On Fri, 31 Jan 2014 19:31:44 -0800 (PST), Leon Zebrick wrote:

>Problem solved. Â Did change the 22uf cap on IF/Audio to 4.7uf but that had minimal influence, will leave the 4.7 in for good measure. Â No degradation in audio quality noted. Â While the case was off I started playing around with a .01uf on speaker jack, etc. Â That didn't help, but while testing I noticed that with the mic near the PA, severe feedback occurred. Â I opened the Shure 444 and tacked that .01uf from the audio hot to gnd. and that did it! Â Thanks all.
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18482. RE: [DrakeRadio] L7 linear problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 06:15:07 UTC
From: Greg Schultz Sr
Topic: 18473 Message: 18482

I removed those resistors and installed a zener bias circuit in the amplifier. No more heat or arc to ground.

Greg W5RY

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Friday, January 31, 2014 9:28 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L7 linear problems

Keith -

Evan (as usual) has the right info! Heat is the killer and a simple (silent) fan with rubber feet set on top of the
cabinet over the center, _blowing UP_ does wonders for the supply longevity.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Evan Rolek wrote:
>
>
> Keith,
>
> Having serviced L4, L4B, and L7 amplifiers, and remembering they can be 30-40 years old, I have found the failure rate
> of those resistors to be around 60-70%. While that might seem high, remember the age and the variability of the
> operating environment. When those resistors are replaced, and both should be done at the same time, the 5 K 7 watt
> resistor on the underside should also be replaced with a 20 watt equivalent. To me, a large contributing factor in
> addition to age, is the heat within the power supply. In rare instances, there might be a flashover to ground between
> the end region of the resistor(s) and the triangular metal mounting "flanges"; the through bolt design doesn't seem to
> be prone to the arc-over and one can always switch to epoxy-fiberglass triangles for mounting when in doubt. Hence, I
> either use and internal fan (lots of work) or an external fan or fans. What works well is a 220 v fan that is
> selected on the basis of starting and running reliably one 110 vac. Then, with a thin rubber foot under each corner,

> you get some cooling (by pulling air OUT) and it is virtually silent. Based upon my measurements with my non-contact
> IR thermometer, such an arrangement results in a case temperature drop of 30 deg F.
>
> I'm sure there are some experts out there that can give you better advice and better explanation than the above so
> let's all share and we can all learn.
>
> 73,
>
> Evan, K9SQG
>
>
> -----Original Message-----
> From: g3vkw <g3vkw@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Fri, Jan 31, 2014 7:06 pm
> Subject: [DrakeRadio] L7 linear problems
>
> Hi Guys,
> A friend of mine G4ALH has for the 3rd time had a Failure with the 50watt Bleeder
> resistors in the PSU.
> I have a L4B, and touch wood, I have never had a problem with them.
> Is this an issue with the PSU's or an isolated case.
> We are wondering if there is something else that maybe causing this problem.
> Any idea's??
> 73
> Keith G3VKW
>
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

18483. Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 09:10:45 UTC
From: Henny Kuyper
Topic: 18413 Message: 18483

Hey Leon,

The same happened in my TR7 sn 6348.
Just change C1151 from 22uF to 4.7uF and the symptoms disappear.

Vox gain to low, on the transmit exciter board, change R325 from 100k to 200k.

--
73, Henny, PA3HK
If it works, rip it apart and find out why!

(http://www.avast.com/)

Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus
(http://www.avast.com/) actief is.

18484. RE: [DrakeRadio] L7 linear problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 11:54:39 UTC
From: keith evans
Topic: 18473 Message: 18484

Thanks to Evan, Gary, and Greg for the info re the L7,

I will pass it on, And get a Fan on my PSU as well, 30 deg F is very impressive.

Thanks

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Evan Rolek
Sent: 01 February 2014 01:32
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L7 linear problems

Keith,

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I'm sure there are some experts out there that can give you better advice and better explanation than the above so let's all share and we can all learn.

73,

Evan, K9SQG

-----Original Message-----
From: g3vkw <g3vkw@btconnect.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Jan 31, 2014 7:06 pm
Subject: [DrakeRadio] L7 linear problems

Hi Guys,

A friend of mine G4ALH has for the 3rd time had a Failure with the 50watt Bleeder resistors in the PSU.

I have a L4B, and touch wood, I have never had a problem with them.

Is this an issue with the PSU's or an isolated case.

We are wondering if there is something else that maybe causing this problem.

Any idea's??

73

Keith G3VKW

[Non-text portions of this message have been removed]

18485. Re: [DrakeRadio] Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 15:30:59 UTC
From: Jim Shorney
Topic: 18413 Message: 18485

On Sat, 01 Feb 2014 10:10:45 +0100, Henny Kuyper wrote:

>Vox gain to low, on the transmit exciter board, change R325 from 100k to 200k.

Another way, from DrakemodV6:

"The VOX requires about 50 mv of microphone input to trigger reliably from pin 1 on the mic connector. On the TR7, it takes a very high setting on the VOX Gain control to make the VOX trip. This is in contrast to the mic gain, where not much is needed at all. C304, a .01 uF capacitor coupling the voltage doubler has a reactance of 15K at 1 kHz. Its value is much too low, especially when the applied mic input signal is divided in half by C320, another .01 (transient suppression). Change C304 to a .1 uF. The improvement is such that it will take barely adequate VOX gain to 'acceptable'. "

I did this and almost have too much VOX gain now. A value between .05 and .1 might be optimal for my rig. YMMV.

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18486. T-4XBSide Tone Issue Revisited

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-01 23:53:40 UTC
From: <mkellync@...>
Topic: 18486 Message: 18486

Garey and the others that were kind enough to reply to my request for help below:

Thanks - I ordered the C-129/C-140 cap from Hayseed Hamfest, installed it in the T-4XB and the problem is solved.

Now to move on to the T-4XC .. thanks so very much ... what a great source of information.

73, Michael NZ4D

==========

Michael -

Almost certainly this is the electrolytic cap (C129 T-4XB) or (C107 T-4XC). You can check by connecting a good cap in
parallel with each of these.
Replacement cap(s) available from Hayseedhamfest.com.

Secondary possibility is the switching diode (D8 T-4XB) or (CR15 T-4XC). Check voltage across diode. Should be -0.7
VDC or so key UP, and +15 VDC or more key down.

If no luck, check back here!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael A. Kelly wrote:
>
>
> Hello everyone,
>
>
> I have an issue that occurs in both my B and C Line Twins. When I am transmitting CW, using headphones, there is a
> steady, lower single note sidetone that is continuously heard in the background. The C line's background tone is
> louder than the B Line. It is independent of the actual CW characters being sent and at a much lower in volume. As
> such, it might not even be much of an issue if one was not using headphones, but it is very noticeable when you are.
> Unfortunately I run 100% of the time using headphones.
>
>

> On the T-4XB, if I turn down the GAIN and drop the power (and the overall level of the sidetone) it becomes much less
> … and of course, if you turn it down enough then the vox will drop out and it will not remain in transmit… when it is
> running with enough drive to read about .3 on the plate amp meter, it is low enough that it is tolerable, but I know
> this is not normal. If I load up to 350 mils, then it is quite a bit louder in the background.
>
>
> Any idea what this steady sidetone is in the background and how best to remedy it?
>
>
> Thanks,
>
>
> Michael NZ4D
>

18487. FS-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 03:42:21 UTC
From: Lee Hiers
Topic: 3345 Message: 18487

Hi Y'all,

I've looked at the manual for the FS-4 and didn't see anything...

What should the injection voltage out of the FS-4 be going into the R-4?

I see the June 2004 article by Steven Hageman shows he was getting about 2 volts P-P using a 50 ohm load out of his crystal eliminator. Does that sound about right?

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18488. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 05:12:04 UTC
From: <vk2sja@...>
Topic: 18076 Message: 18488

A question for someone more knowledgable than me (just about everyone :-).

The neutralization method Steve describes where you temporarilly disconnect the screen voltage (+250) to the PA cage.

Can this be safely done in the power supply? Or are other parts of the circuit dependent on the presence of +250v?

73, Steve

18489. Re: Early TR-7, RF getting into audio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 10:51:40 UTC
From: Henny Kuyper
Topic: 18413 Message: 18489

Thanks for the info Jim.
I overlooked the C304/329 combination.

--
73, Henny, PA3HK
If it works, rip it apart and find out why!

(http://www.avast.com/)

Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus
(http://www.avast.com/) actief is.

18490. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 13:32:56 UTC
From: Bernie
Topic: 18076 Message: 18490

I've done it right at the base of the tube (tubes if running two finals) on the tube socket. Be sure the wires aren't close to anything else....and in some cases, I've put a 'pinch' of black electrical tape on them while doing the neutralization.
Bernie in ND
WDØGMD

----- Original Message -----
From: vk2sja@...
To: DrakeRadio@yahoogroups.com
Sent: Saturday, February 01, 2014 11:12 PM
Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

A question for someone more knowledgable than me (just about everyone :-).

The neutralization method Steve describes where you temporarilly disconnect the screen voltage (+250) to the PA cage.

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73, Steve

18491. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 15:34:52 UTC
From: Garey Barrell
Topic: 18076 Message: 18491

Steve -

I don't think so. You need the +250 to pull in the T/R relay. You could manually close it, if it's the TR-4, but
difficult with the later 'ice cube' relays. I guess you could just temporarily ground the XMIT bus at the 'bottom' end
of the meter shunt resistor.

I disconnect just outside the underchassis PA shield, unless it has the 'VHF Mod' when you can just pull the jumper
cable. Disconnect from the outside of the ceramic bypass feedthrough. Careful, they ARE breakable, and don't like
'side loading'!

May work, if you try it let us know!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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vk2sja@... wrote:
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> The neutralization method Steve describes where you temporarilly disconnect the screen voltage (+250) to the PA cage.
>
>
> Can this be safely done in the power supply? Or are other parts of the circuit dependent on the presence of +250v?
>
>
> 73, Steve
>
>

18492. Re: [DrakeRadio] FS-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 15:36:29 UTC
From: Garey Barrell
Topic: 3345 Message: 18492

Lee -

Yes, 2 V p-p would be a minimum I would think. Most 'INJ' signals are a little bigger than that, but not much.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Lee Hiers wrote:
>
>
> Hi Y'all,
>
> I've looked at the manual for the FS-4 and didn't see anything...
>
> What should the injection voltage out of the FS-4 be going into the R-4?
>
> I see the June 2004 article by Steven Hageman shows he was getting about 2 volts P-P using a 50 ohm load out of his
> crystal eliminator. Does that sound about right?
>
> 73 de Lee
> --
> Lee Hiers, AA4GA
> www.aa4ga.com <http://www.aa4ga.com>
>
> Submit your QRP DXCC totals to www.qrpdx.com <http://www.qrpdx.com>!
>
>
>

18493. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 15:54:15 UTC
From: <w5rkl@...>
Topic: 18076 Message: 18493

Steve,

The screen voltage for the final tubes is supply from the power supply through "pin 11". If you disconnect the voltage in the power supply to pin 11 you will effectively accomplish the desired effect, remove the screen voltage from the final tube BUT you will also remove B+ to other stages/tubes as well which you do not want to happen.

You can see this by reviewing the power supply (AC3 or AC4 it doesn't matter) and the transmitter power connector pin 11. The power supply and transmitter schematics are in the transmitter manual or you can purchase Garey, K4OAH, Drake CDs and they are included on the CD.

http://k4oah.com/

I agree, disconnect the screen voltage at the tube socket, not at/inside the power supply.

73
Mike W5RKL

18494. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 18:01:00 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 18494

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

18495. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 18:07:53 UTC
From: Jim Lowman
Topic: 18076 Message: 18495

Hello Everyone,

I came upon an original R-4 and T-4X that was stored in a garage for many years.
Obviously, very grimy.

Aside from pulling the tubes, what do you suggest as a way to restore these radios?

Thanks and 73 de Jim - AD6CW

18496. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 18:28:33 UTC
From: barcand@...
Topic: 18076 Message: 18496

Jim,
Check the archives of this list for 'restorations', or check the files section for the same. In a nutshell...replace the filter caps in the power supply as it is not a question of "if" they are bad but rather "when" they'll go bad and take out the transmitter. While you're at it, replace all paper and bumble bee electrolytic caps, check all resistors to make sure none have gone way high on you (more than 10% of spec'd value). Once those have been changed out, then clean all switch contacts using a cut down cotton swab with a drop of DeOxit on it, making sure you leave no "fuzz" behind. Check the tubes with a reliable tube checker. Then power up the units using a Dim Bulb protector...(look up dim bulb test) which is an ordinary light socket in series with the hot lead of the 117 V AC cord, using an AC socket into which you plug in the trans/receiver. From that point, you'll know if it works or not (don't forget to connect a piece of wire about 14 feet will do, or connect to a ham antenna to receive. On transmit first power-up, best to go directly to a dummy load. You may need to do an alignment also.

Then you can concentrate on cleaning, dusting, renewing the 'looks'. Personally I do very little cleaning until I know the
dang thing is going to work. Others may do things differently...this is just my way. Of course it has been advised over and over again that one should not just 'hose down' the switches with electronic cleaner, because some wafers will absorb the moisture-liquid and swell, throwing all contacts out of alignment....a bad deal. Some have hosed their chassis down with scrubbing bubbles, left them sit for awhile, then washed them off with the shower. I would sure hesitate to do that, as I've only heard of that being done on some Hallicrafters models. Good luck. Keep us posted.

Bernie in ND
WD0GMD

On Sun, February 2, 2014 12:07 pm, Jim Lowman wrote:
> Hello Everyone,
>
> I came upon an original R-4 and T-4X that was stored in a garage for
> many years.
> Obviously, very grimy.
>
> Aside from pulling the tubes, what do you suggest as a way to restore
> these radios?
>
> Thanks and 73 de Jim - AD6CW
>

18497. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 18:39:06 UTC
From: Garey Barrell
Topic: 18076 Message: 18497

Jim -

1. Check for the correct fuses (0.75A R, 5-1/4 T). If they show signs of dampness, I'd give them an hour or two in
direct sunlight or in a cardboard box with a 100W light bulb.

2. Go through with a screwdriver and tighten all hardware, tube sockets, terminal strips, PC board 'feet', shield
panels. Carry out careful inspection as you go for any obvious electrical or mechanical damage.

3. Put a 40W light bulb in series with the line in and turn them on. If the light flashes brightly and then dims
almost out, (most likely,) they're fine and let them run for an hour or so 'under observation'. Then take out the bulb
and go!

4. If the bulb STAYS bright, you probably have dead electrolytics and/or power supply diodes. Fix as needed.

5. Run an alignment check, check all switches and knobs for function. Fix as needed.! Give all tube sockets switches
and other connectors a DeoxIT treatment. DO NOT _SPRAY_ anything, use a Q-Tip for stubborn stuff. Use FaderLube on pots.

6. The other extreme is to measure each resistor, replace all the electrolytics and film capacitors, resolder all the
connections, and THEN go back to #1.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Lowman wrote:
> Hello Everyone,
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> I came upon an original R-4 and T-4X that was stored in a garage for
> many years.
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> these radios?
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> Thanks and 73 de Jim - AD6CW

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> ---
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> Yahoo Groups Links
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18498. Restoring an R-4/T-4X

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 18:40:07 UTC
From: Jim Lowman
Topic: 18076 Message: 18498

Sorry about not changing the subject line, guys!

Thanks for the good advice, Bernie!

73 de Jim - AD6CW

18499. Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 19:21:46 UTC
From: Steve Wedge
Topic: 18076 Message: 18499

It's less work to disconnect at the feed-through. You just have to have a light touch with the soldering iron. I've never broken one - you just need to not press too hard on it and not overheat it.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: vk2sja@...
Sent: Sunday, February 02, 2014 12:12 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes

A question for someone more knowledgable than me (just about everyone :-).

The neutralization method Steve describes where you temporarilly disconnect the screen voltage (+250) to the PA cage.

Can this be safely done in the power supply? Or are other parts of the circuit dependent on the presence of +250v?

73, Steve

18500. Re: [DrakeRadio] Restoring an R-4/T-4X

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 19:31:45 UTC
From: Steve Wedge
Topic: 18076 Message: 18500

Everyone here knows I'm a "washer". I don't always, but from your description, these sound like good candidates for that. See previous posts.

As Bernie mentioned, I do make sure I get the rig working at least to the point where everything is functioning - even if the whole rig is out of alignment. Replacing components prior to cleaning allows extra cleaning around the new parts (such as excess flux).

I remove the tubes and PTO's before doing the wash, and I do NOT dunk!

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Jim Lowman
Sent: Sunday, February 02, 2014 1:40 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Restoring an R-4/T-4X

Sorry about not changing the subject line, guys!

Thanks for the good advice, Bernie!

73 de Jim - AD6CW

18501. AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 20:38:31 UTC
From: <oilieone@...>
Topic: 18501 Message: 18501

tried AM mode today on 15M, informed have bad hum on signal. SSB reports have been 59, listening to signal on another RX on SSB I don't hear any hum. Realize I didn't try AM mode......

Thoughts?

73
Wayne
K5FEX

ps. Tech net still meet on 7285? on Sunday ?

18502. Re: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 20:54:25 UTC
From: Garey Barrell
Topic: 18501 Message: 18502

Radio??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

oilieone@... wrote:
>
>
> tried AM mode today on 15M, informed have bad hum on signal. SSB reports have been 59, listening to signal on another
> RX on SSB I don't hear any hum. Realize I didn't try AM mode......
>
>
> Thoughts?
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>
> 73
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> Wayne
>
> K5FEX
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>
> ps. Tech net still meet on 7285? on Sunday ?
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18503. RE: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:10:50 UTC
From: wayne.smith
Topic: 18501 Message: 18503

oops, T-4XC SN 28964. helps huh!

Wayne

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Sunday, February 02, 2014 2:54 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] AC humm on AM signal but not SSB

Radio??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

oilieone@... wrote:
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> RX on SSB I don't hear any hum. Realize I didn't try AM mode......
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> 73
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> Wayne
>
> K5FEX
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>
> ps. Tech net still meet on 7285? on Sunday ?
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18504. Re: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:19:41 UTC
From: Garey Barrell
Topic: 18501 Message: 18504

Wayne -

You probably have hum on SSB as well, but it's so far down the filter skirt it's not audible.

I'd start by bridging C107 with a 60 uF or more cap. If that clears it up, see Hayseedhamfest.!

If not, lemme know!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wayne.smith wrote:
>
>
> oops, T-4XC SN 28964. helps huh!
>
> Wayne
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Sunday, February 02, 2014 2:54 PM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] AC humm on AM signal but not SSB
>
> Radio??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> oilieone@... <mailto:oilieone@...> wrote:
> >
> >
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> > RX on SSB I don't hear any hum. Realize I didn't try AM mode......
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> > 73
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> > K5FEX
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> > ps. Tech net still meet on 7285? on Sunday ?
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18505. RE: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:20:11 UTC
From: wayne.smith
Topic: 18501 Message: 18505

After more investigation, turns out more than just hum. something is pulsing at 60 hz. In AM mode, listening on another receiver can hear the pulse, have pulsing RF output. In SSB mode, U/L doesn't matter, have hum but not the cycling. Now I know why the bad signal report!

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Sunday, February 02, 2014 2:54 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] AC humm on AM signal but not SSB

Radio??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

oilieone@cox.net wrote:
>
>
> tried AM mode today on 15M, informed have bad hum on signal. SSB reports have been 59, listening to signal on another
> RX on SSB I don't hear any hum. Realize I didn't try AM mode......
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> 73
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> Wayne
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> K5FEX
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> ps. Tech net still meet on 7285? on Sunday ?
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18506. RE: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:35:17 UTC
From: wayne.smith
Topic: 18501 Message: 18506

Thanks Garey. Already have the replacement cap from Hayseed. Time to break out the iron :) and, per other post, the hum is on SSB also.

The pulsing action is what i don't understand

Wayne

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Sunday, February 02, 2014 3:20 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] AC humm on AM signal but not SSB

Wayne -

You probably have hum on SSB as well, but it's so far down the filter skirt it's not audible.

I'd start by bridging C107 with a 60 uF or more cap. If that clears it up, see Hayseedhamfest.!

If not, lemme know!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wayne.smith wrote:
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> oops, T-4XC SN 28964. helps huh!
>
> Wayne
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> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Sunday, February 02, 2014 2:54 PM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] AC humm on AM signal but not SSB
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> Radio??
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> 73, Garey - K4OAH
> Glen Allen, VA

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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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18507. Re: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:38:28 UTC
From: Garey Barrell
Topic: 18501 Message: 18507

Probably the 'controlled carrier' effect of the AM. Could be a bad V9, but I'd start with the cap.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wayne.smith wrote:
>
>
> After more investigation, turns out more than just hum. something is pulsing at 60 hz. In AM mode, listening on
> another receiver can hear the pulse, have pulsing RF output. In SSB mode, U/L doesn't matter, have hum but not the
> cycling. Now I know why the bad signal report!
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> Wayne
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> K5FEX
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Sunday, February 02, 2014 2:54 PM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] AC humm on AM signal but not SSB
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> Radio??
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> oilieone@... <mailto:oilieone@...> wrote:
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18508. Re: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 21:44:59 UTC
From: Garey Barrell
Topic: 18501 Message: 18508

I suspect it's the controlled carrier trying to follow the hum.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wayne.smith wrote:
>
>
> Thanks Garey. Already have the replacement cap from Hayseed. Time to break out the iron :) and, per other post, the
> hum is on SSB also.
>
> The pulsing action is what i don't understand
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> Wayne
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> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Sunday, February 02, 2014 3:20 PM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] AC humm on AM signal but not SSB
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> Wayne -
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> You probably have hum on SSB as well, but it's so far down the filter skirt it's not audible.
>
> I'd start by bridging C107 with a 60 uF or more cap. If that clears it up, see Hayseedhamfest.!
>
> If not, lemme know!
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> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > oilieone@... <mailto:oilieone@...> <mailto:oilieone@...> wrote:
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> > > ps. Tech net still meet on 7285? on Sunday ?
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18509. RE: [DrakeRadio] AC humm on AM signal but not SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 23:08:11 UTC
From: wayne.smith
Topic: 18501 Message: 18509

You were right again! C107 was bad. Installed the Hayseed Hamfest replacement can.

Had me worried when I attempted to tune up and had no drive. Suspected V9. Changed it out for NOS and all is well. Hum gone. Nice clean tone from carrier.

Thanks again!

73,

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Sunday, February 02, 2014 3:45 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] AC humm on AM signal but not SSB

I suspect it's the controlled carrier trying to follow the hum.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wayne.smith wrote:
>
>
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>
> The pulsing action is what i don't understand
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> Wayne
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Sunday, February 02, 2014 3:20 PM
> *To:* DrakeRadio@yahoogroups.com
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> Wayne -
>

> You probably have hum on SSB as well, but it's so far down the filter skirt it's not audible.
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> If not, lemme know!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com%20%3chttp:/www.k4oah.com> <http://www.k4oah.com>>
>
> wayne.smith wrote:
> >
> >
> > oops, T-4XC SN 28964. helps huh!
> >
> > Wayne
> >
> > *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> > *Sent:* Sunday, February 02, 2014 2:54 PM
> > *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> > *Subject:* Re: [DrakeRadio] AC humm on AM signal but not SSB
> >
> > Radio??
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com <http://www.k4oah.com%20%3chttp:/www.k4oah.com%20%3chttp:/www.k4oah.com%20%3chttp:/www.k4oah.com> <http://www.k4oah.com <http://www.k4oah.com%20%3chttp:/www.k4oah.com>>>
> >
> > oilieone@... <mailto:oilieone@...> <mailto:oilieone@cox.net> wrote:
> > >
> > >
> > > tried AM mode today on 15M, informed have bad hum on signal. SSB reports have been 59, listening to signal on another
> > > RX on SSB I don't hear any hum. Realize I didn't try AM mode......
> > >
> > >
> > > Thoughts?
> > >
> > >

> > > 73
> > >
> > > Wayne
> > >
> > > K5FEX
> > >
> > >
> > > ps. Tech net still meet on 7285? on Sunday ?
> > >
> > >
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>

18510. AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-02 23:54:48 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18510

Thanks everyone.

I understand now. While rebuilding the second attempt at a working power supply (AC3) I was idly thinking about adding a separate +250v fuse. Easy disconnect. But as I somewhat guessed this is not practical as the radio requires +250v for lots of things.

Even getting the correct voltages to the rig in Australia is proving more difficult than one might expect.

The first AC3 power supply I purchased had a transformer with only one 110vac primary winding. So it could not be modified for 240vac operation.

The second AC3 has the correct transformer with two primary windings. Windings are in parallel for 110vac and series for 240vac. The colour coding in the AC3 manual for the phasing of these windings was incorrect for my transformer BTW.

But even after I got the windings sorted out I'm rather convinced that this transformer really wants 220vac. And not the 250vac that I've got on my wall outlet. We are officially 230vac in Australia since 2000 (it was 240vac previous to 2000). 250vac however is *just* inside the allowed spec and not uncommon for certain parts of the country closer to power stations.

I brought the AC3 supply up on a variac looking at the voltages. At 220vac supply all the outputs look bang on the money. And the transformer is *just* starting to make a comfortable I'm alive hum, barely audible. Increase the supply to 250vac and the hum takes on the ominous growl that one normally associates with "Danger Will Robertson". And all the supply outputs look uncomfortably high (admittedly there is no load at this stage).

I guess that the radio (TR-4C) and PSU might run at the elevated voltage levels but I suspect that it won't do much for the longevity of either.

So it looks like I'm going to have to create a permanent auto-transformer arrangement to lower the mains voltage back down to 220vac.

I'm thinking to try build one of these:-

http://archive.siliconchip.com.au/cms/A_112364/article.html

Anyway, mostly I'm just posting for posterity in the hope it may help someone else down the line who is trying to do the same thing. But any advice and guidance is always gratefully received!

73, Steve.

> It's less work to disconnect at the feed-through. You just have to have a
> light touch with the soldering iron. I've never broken one - you just
> need to not press too hard on it and not overheat it.
>
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> From: vk2sja@...
> Sent: Sunday, February 02, 2014 12:12 AM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>
> A question for someone more knowledgable than me (just about everyone :-).
>
> The neutralization method Steve describes where you temporarilly
> disconnect the screen voltage (+250) to the PA cage.
>
> Can this be safely done in the power supply? Or are other parts of the
> circuit dependent on the presence of +250v?
>
>
> 73, Steve
>
>

18511. New Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 01:35:16 UTC
From: <markhilliard@...>
Topic: 18511 Message: 18511

Greetings, I just purchased a T-4XB and a R-4B. I am a first time Drake owner so been searching the messages here for info. I have a few questions.

1.Looking at my R-4 I noticed that some caps need replacing. I see several people selling replacements so that is nice. However, the installation looks to be sporty. If one of the small boards needs to be unscrewed from the frame, is there enough give in the hookup wires to move the board a little bit or do you have to unsolder the wires to get at the cap.

2. I noticed that my S meter on the R-4 doesn't move at all. It comes up from 0 when I turn it on but just parks at 9 no matter if I tune to a strong or weak signal. I see the adjustment procedure in the manual but was wondering if there was any other tips to try.

3. The cinch jones connector that plugs into the T-4XB seems to have an extra wire sticking out next to the RCA connector. It is just a short wire with some electric tape wrapped around it. Not sure what pin it is hooked up to. Don't see it in the schematic so was wonder if this was some common mod.

Thanks

Mark

18512. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 03:18:57 UTC
From: Garey Barrell
Topic: 18076 Message: 18512

Steve -

I don't see a price for the product you mention. All you need is a filament transformer with a secondary voltage equal
to how much you want to reduce the mains, and capable of handling the 3 Amps drawn by the power supply. Put the primary
across the mains, and put the secondary in series with the primary of the AC-3 transformer. Arrange the leads so that
the filament voltage is 'out of phase' with the AC-3 primary, and you're done.

You can find a drawing for this as a 'boost/buck' transformer connection all over the internet.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Thanks everyone.
>
> I understand now. While rebuilding the second attempt at a working power
> supply (AC3) I was idly thinking about adding a separate +250v fuse. Easy
> disconnect. But as I somewhat guessed this is not practical as the radio
> requires +250v for lots of things.
>
> Even getting the correct voltages to the rig in Australia is proving more
> difficult than one might expect.
>
> The first AC3 power supply I purchased had a transformer with only one
> 110vac primary winding. So it could not be modified for 240vac operation.
>
> The second AC3 has the correct transformer with two primary windings.
> Windings are in parallel for 110vac and series for 240vac. The colour
> coding in the AC3 manual for the phasing of these windings was incorrect
> for my transformer BTW.
>
> But even after I got the windings sorted out I'm rather convinced that
> this transformer really wants 220vac. And not the 250vac that I've got on
> my wall outlet. We are officially 230vac in Australia since 2000 (it was
> 240vac previous to 2000). 250vac however is *just* inside the allowed spec
> and not uncommon for certain parts of the country closer to power
> stations.
>

> I brought the AC3 supply up on a variac looking at the voltages. At 220vac
> supply all the outputs look bang on the money. And the transformer is
> *just* starting to make a comfortable I'm alive hum, barely audible.
> Increase the supply to 250vac and the hum takes on the ominous growl that
> one normally associates with "Danger Will Robertson". And all the supply
> outputs look uncomfortably high (admittedly there is no load at this
> stage).
>
> I guess that the radio (TR-4C) and PSU might run at the elevated voltage
> levels but I suspect that it won't do much for the longevity of either.
>
> So it looks like I'm going to have to create a permanent auto-transformer
> arrangement to lower the mains voltage back down to 220vac.
>
> I'm thinking to try build one of these:-
>
> http://archive.siliconchip.com.au/cms/A_112364/article.html
>
> Anyway, mostly I'm just posting for posterity in the hope it may help
> someone else down the line who is trying to do the same thing. But any
> advice and guidance is always gratefully received!
>
> 73, Steve.
>
>
>
>
>> It's less work to disconnect at the feed-through. You just have to have a
>> light touch with the soldering iron. I've never broken one - you just
>> need to not press too hard on it and not overheat it.
>>
>>
>> Steve Wedge, W1ES/4
>>
>> Time flies like an arrow; fruit flies like a banana.
>>
>>
>> From: vk2sja@...
>> Sent: Sunday, February 02, 2014 12:12 AM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>
>> A question for someone more knowledgable than me (just about everyone :-).
>>
>> The neutralization method Steve describes where you temporarilly
>> disconnect the screen voltage (+250) to the PA cage.
>>
>> Can this be safely done in the power supply? Or are other parts of the
>> circuit dependent on the presence of +250v?
>>

>>
>> 73, Steve
>>
>>

18513. Re: [DrakeRadio] New Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 03:30:25 UTC
From: Garey Barrell
Topic: 18511 Message: 18513

Mark -

Both the manuals are on your CD (went out yesterday via First Class Mail..)

The recap kit from Tom at HayseedHamfest.com is the simplest approach.

The RF GAIN control must be full CW for the meter to work. You need a shorting plug in the MUTE connector on the back of
the receiver for it to operate in any but the ON position of the FUNCTION switch. When this is done, with no signal or
antenna just adjust the ZERO control on the side to see if you can set the meter to zero. If not, check and make sure
that all the tubes are in the correct sockets, and that they are all 'lit'. XTALS switch must be in NORM position.

It looks like a simple receiver, but the controls must ALL be in the correct position for it to work. Section 4 of the
manual explains......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

markhilliard@... wrote:
>
>
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> info. I have a few questions.
>
> 1.Looking at my R-4 I noticed that some caps need replacing. I see several people selling replacements so that is
> nice. However, the installation looks to be sporty. If one of the small boards needs to be unscrewed from the frame,
> is there enough give in the hookup wires to move the board a little bit or do you have to unsolder the wires to get at
> the cap.
>
> 2. I noticed that my S meter on the R-4 doesn't move at all. It comes up from 0 when I turn it on but just parks at 9
> no matter if I tune to a strong or weak signal. I see the adjustment procedure in the manual but was wondering if
> there was any other tips to try.
>

> 3. The cinch jones connector that plugs into the T-4XB seems to have an extra wire sticking out next to the RCA
> connector. It is just a short wire with some electric tape wrapped around it. Not sure what pin it is hooked up to.
> Don't see it in the schematic so was wonder if this was some common mod.
>
> Thanks
>
> Mark
>
>

18514. RE: New Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 04:52:31 UTC
From: <markhilliard@...>
Topic: 18511 Message: 18514

Hey Garey;

Good deal on the CDs. I thought I had all the switches in the correct spots but did not give the tubes a real close inspection so I pull the top off the R4B and pulled the tubes (well, not the one in the metal sleeve) to make sure the correct ones were in the proper socket. Reseated the tubes, shorted the mute, dimmed the room lights and switched the radio on.All the tubes lighted up and I zeroed the meter. Hooked it up to the T-4XB and meter works great. If only the cap change should go so smoothly.

Thanks

Mark
Ka5ndh

18515. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 05:04:06 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18515

Hi Garey,

Thanks for the suggestion!

The page I linked is not a product as such but a construction article from Silicon Chip magazine. Many of the construction articles they print wind up being sold as "electronic kits" by various electronics stores. But not this particular one as far as I know.

The article describes how to build what I believe I am correct in calling an auto-transformer. They used a fairly common garden variety transformer with multiple voltage taps on the secondary side. Then interconnected the primary of the transformer with the secondary in series. Using the "tap" points on the secondary to arrive at your desired output voltage.

The article does make note that you are supply limited by the current handling capability of the secondary.

The page I linked only contains the introduction to the article. They want you to pay for the rest :-) The details regarding the transformer used are on subsequent pages. But the all important circuit diagram is on the first page.

Solving the problem with a "boost/buck" transformer as you suggest seems a very similar solution. A very important difference appears to be that with the boost/buck arrangement you describe, that the "killer" mains voltage is all kept isolated on one side of the transformer(s). Which is not the case with the auto-transformer. Obviously having this extra isolation would be desirable. The Silicon Chip solution to the problem means that you wouldn't have to mess with the internals of your appliance. A non issue in this case.

I have ordered a reasonably cheap (multi-tap 12-30v 120VA) transformer that has a 30 volt 4 Amp secondary output. It would appear that I could use this in either configuration.

73. Steve.

> Steve -
> I don't see a price for the product you mention. All you need is a filament transformer with a secondary voltage equal
> to how much you want to reduce the mains, and capable of handling the 3 Amps drawn by the power supply. Put the primary
> across the mains, and put the secondary in series with the primary of the
> AC-3 transformer. Arrange the leads so that
> the filament voltage is 'out of phase' with the AC-3 primary, and you're

done.
> You can find a drawing for this as a 'boost/buck' transformer connection
all over the internet.
> 73, Garey - K4OAH
> Glen Allen, VA
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
> Steve VK2SJA wrote:
>> Thanks everyone.
>> I understand now. While rebuilding the second attempt at a working
power
>> supply (AC3) I was idly thinking about adding a separate +250v fuse. Easy
>> disconnect. But as I somewhat guessed this is not practical as the
radio
>> requires +250v for lots of things.
>> Even getting the correct voltages to the rig in Australia is proving more
>> difficult than one might expect.
>> The first AC3 power supply I purchased had a transformer with only one
110vac primary winding. So it could not be modified for 240vac
>> operation.
>> The second AC3 has the correct transformer with two primary windings.
Windings are in parallel for 110vac and series for 240vac. The colour
coding in the AC3 manual for the phasing of these windings was
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>> for my transformer BTW.
>> But even after I got the windings sorted out I'm rather convinced that
this transformer really wants 220vac. And not the 250vac that I've got
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>> my wall outlet. We are officially 230vac in Australia since 2000 (it
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>> 240vac previous to 2000). 250vac however is *just* inside the allowed spec
>> and not uncommon for certain parts of the country closer to power
stations.
>> I brought the AC3 supply up on a variac looking at the voltages. At 220vac
>> supply all the outputs look bang on the money. And the transformer is
just starting to make a comfortable I'm alive hum, barely audible.
Increase the supply to 250vac and the hum takes on the ominous growl
that
>> one normally associates with "Danger Will Robertson". And all the
supply
>> outputs look uncomfortably high (admittedly there is no load at this
stage).
>> I guess that the radio (TR-4C) and PSU might run at the elevated
voltage
>> levels but I suspect that it won't do much for the longevity of either.
So it looks like I'm going to have to create a permanent
>> auto-transformer
>> arrangement to lower the mains voltage back down to 220vac.
>> I'm thinking to try build one of these:-

>> http://archive.siliconchip.com.au/cms/A_112364/article.html
>> Anyway, mostly I'm just posting for posterity in the hope it may help someone else down the line who is trying to do the same thing. But any advice and guidance is always gratefully received!
>> 73, Steve.
>>> It's less work to disconnect at the feed-through. You just have to have a
>>> light touch with the soldering iron. I've never broken one - you just need to not press too hard on it and not overheat it.
>>> Steve Wedge, W1ES/4
>>> Time flies like an arrow; fruit flies like a banana.
>>> From: vk2sja@...
>>> Sent: Sunday, February 02, 2014 12:12 AM
>>> To: DrakeRadio@yahoogroups.com
>>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>> A question for someone more knowledgable than me (just about everyone :-).
>>> The neutralization method Steve describes where you temporarilly disconnect the screen voltage (+250) to the PA cage.
>>> Can this be safely done in the power supply? Or are other parts of the circuit dependent on the presence of +250v?
>>> 73, Steve

18516. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 06:52:06 UTC
From: Mike Millen
Topic: 18076 Message: 18516

And a cheap and plentiful supply for this type of transformer is a car battery charger... pick one up from a charity shop or yard sale!

Mike
M0MLM

----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Monday, February 03, 2014 3:18 AM
Subject: Re: [DrakeRadio] AC3 and 240 volt AC mains

Steve -

I don't see a price for the product you mention. All you need is a filament transformer with a secondary voltage equal
to how much you want to reduce the mains, and capable of handling the 3 Amps drawn by the power supply. Put the primary
across the mains, and put the secondary in series with the primary of the AC-3 transformer. Arrange the leads so that
the filament voltage is 'out of phase' with the AC-3 primary, and you're done.

You can find a drawing for this as a 'boost/buck' transformer connection all over the internet.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Steve VK2SJA wrote:
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> requires +250v for lots of things.
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> I'm thinking to try build one of these:-
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>> It's less work to disconnect at the feed-through. You just have to have a
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>> Steve Wedge, W1ES/4
>>
>> Time flies like an arrow; fruit flies like a banana.
>>
>>
>> From: vk2sja@...
>> Sent: Sunday, February 02, 2014 12:12 AM

>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
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>> disconnect the screen voltage (+250) to the PA cage.
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>> Can this be safely done in the power supply? Or are other parts of the
>> circuit dependent on the presence of +250v?
>>
>>
>> 73, Steve
>>
>>

18517. Rewiring a 2-B for 120 VAC?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 07:48:38 UTC
From: Jim Lowman
Topic: 18517 Message: 18517

I acquired a beautiful 2-B receiver from the collection of Sindre Torp, LA6OP, a noted Drake collector.

Of course, it's wired for the EU standard.

How would I re-wire it for US operation?

73 de Jim - AD6CW

18518. Re: [DrakeRadio] RE: New Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 14:15:20 UTC
From: Steve Wedge
Topic: 18511 Message: 18518

The cap change is fairly simple if you have the right equipment and are comfortable around soldering.

Yes, there's one board that's close to the cap and you can move it some if you need to. A couple of other tips, from experience:

1. Take a couple of photos of the wiring to the cap. Even if you don't use the photo afterwards, it's peace of mind.
2. Cut the wires at the capacitor tabs. The insulation on these wires melts extremely easy and you'll wind up with a wire end that looks like it was painted by Salvador Dali, otherwise.
3. Per #2, if the wires are now too short, splice in a short length of new hook-up wire, soldering multiple original wire-ends to the far side, and fitting a piece of shrink tubing over the splice. This happens most often with the red-striped wired. USUALLY, the others will be fine.
4. I believe Hayseed provides a new resistor but if they don't, get a new one and don't try to re-use the old one.
5. It's easiest to cut the grounding tabs off the old cap, then melt the solder around the tabs to remove them.
6. This is where the "correct equipment" comes in. Don't even try to solder the grounding tabs with a 35W or smaller pencil iron. You need at least a 100W iron (Mine's called "The Cattle Prod") or gun to flow the solder between the chassis and the new cap.
7. When re-soldering the wires, remember #2. Just enough heat to flow the solder and make a good joint. Don't touch or move the wires until everything has cooled down.

Good luck. It's really not a bad job once you know what you're getting into.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: markhilliard@...
Sent: Sunday, February 02, 2014 11:52 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] RE: New Owner

Hey Garey;

Good deal on the CDs. I thought I had all the switches in the correct spots but did not give the tubes a real close inspection so I pull the top off the R4B and pulled the tubes (well, not the one in the metal sleeve) to make sure the correct ones were in the proper socket. Reseated the tubes, shorted the mute, dimmed the room lights and switched the radio on.All the tubes lighted up and I zeroed the meter. Hooked it up to the T-4XB and meter

works great. If only the cap change should go so smoothly.

Thanks

Mark

Ka5ndh

18519. Re: [DrakeRadio] Rewiring a 2-B for 120 VAC?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 14:51:01 UTC
From: Garey Barrell
Topic: 18517 Message: 18519

Jim -

A couple of wires on the transformer primary need to be moved. The color codes and connections are shown on the schematic.

There's a nice color photo of the leads and the provided terminal strip in my CD (:-)) but the schematic is all you need.

Let me know if you need more help!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Lowman wrote:
> I acquired a beautiful 2-B receiver from the collection of Sindre Torp,
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> Of course, it's wired for the EU standard.
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> How would I re-wire it for US operation?
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> 73 de Jim - AD6CW
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

18520. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 15:00:28 UTC
From: Garey Barrell
Topic: 18076 Message: 18520

Steve -

OK. Yes, the principle is the same. You don't have to get inside the AC-3 this way either. Connect your 'new'
transformer primary to the mains, and put the secondary in series with the line cord to the supply. ALL external. Best
to put it in a box of some sort to keep fingers out, but just a standard wall outlet on the box to plug the AC-3 into.

One caveat.... When you start, be aware that if you connect the external transformer up incorrectly, it will BOOST the
line voltage by the same amount! Be sure to check the output connector before plugging in the AC-3. If you get 250 VAC
(!), reverse _either_ the primary -OR- secondary connections of the external transformer.

Above all ** BE CAREFUL **.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Garey,
>
> Thanks for the suggestion!
>
> The page I linked is not a product as such but a construction article from
> Silicon Chip magazine. Many of the construction articles they print wind
> up being sold as "electronic kits" by various electronics stores. But not
> this particular one as far as I know.
>
> The article describes how to build what I believe I am correct in calling
> an auto-transformer. They used a fairly common garden variety transformer
> with multiple voltage taps on the secondary side. Then interconnected the
> primary of the transformer with the secondary in series. Using the "tap"
> points on the secondary to arrive at your desired output voltage.
>
> The article does make note that you are supply limited by the current
> handling capability of the secondary.
>
> The page I linked only contains the introduction to the article. They want
> you to pay for the rest :-) The details regarding the transformer used are
> on subsequent pages. But the all important circuit diagram is on the first

> page.
>
> Solving the problem with a "boost/buck" transformer as you suggest seems a
> very similar solution. A very important difference appears to be that with
> the boost/buck arrangement you describe, that the "killer" mains voltage
> is all kept isolated on one side of the transformer(s). Which is not the
> case with the auto-transformer. Obviously having this extra isolation
> would be desirable. The Silicon Chip solution to the problem means that
> you wouldn't have to mess with the internals of your appliance. A non
> issue in this case.
>
> I have ordered a reasonably cheap (multi-tap 12-30v 120VA)
> transformer that has a 30 volt 4 Amp secondary output. It would appear
> that I could use this in either configuration.
>
> 73. Steve.
>
>
>
>> Steve -
>> I don't see a price for the product you mention. All you need is a
> filament transformer with a secondary voltage equal
>> to how much you want to reduce the mains, and capable of handling the 3
> Amps drawn by the power supply. Put the primary
>> across the mains, and put the secondary in series with the primary of
> the
>> AC-3 transformer. Arrange the leads so that
>> the filament voltage is 'out of phase' with the AC-3 primary, and you're
> done.
>> You can find a drawing for this as a 'boost/buck' transformer connection
> all over the internet.
>> 73, Garey - K4OAH
>> Glen Allen, VA
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>> Steve VK2SJA wrote:
>>> Thanks everyone.
>>> I understand now. While rebuilding the second attempt at a working
> power
>>> supply (AC3) I was idly thinking about adding a separate +250v fuse. Easy
>>> disconnect. But as I somewhat guessed this is not practical as the
> radio
>>> requires +250v for lots of things.
>>> Even getting the correct voltages to the rig in Australia is proving more
>>> difficult than one might expect.
>>> The first AC3 power supply I purchased had a transformer with only one
> 110vac primary winding. So it could not be modified for 240vac
>>> operation.
>>> The second AC3 has the correct transformer with two primary windings.

> Windings are in parallel for 110vac and series for 240vac. The colour
> coding in the AC3 manual for the phasing of these windings was
> incorrect
>>> for my transformer BTW.
>>> But even after I got the windings sorted out I'm rather convinced that
> this transformer really wants 220vac. And not the 250vac that I've got
> on
>>> my wall outlet. We are officially 230vac in Australia since 2000 (it
> was
>>> 240vac previous to 2000). 250vac however is *just* inside the allowed spec
>>> and not uncommon for certain parts of the country closer to power
> stations.
>>> I brought the AC3 supply up on a variac looking at the voltages. At 220vac
>>> supply all the outputs look bang on the money. And the transformer is
> *just* starting to make a comfortable I'm alive hum, barely audible.
> Increase the supply to 250vac and the hum takes on the ominous growl
> that
>>> one normally associates with "Danger Will Robertson". And all the
> supply
>>> outputs look uncomfortably high (admittedly there is no load at this
> stage).
>>> I guess that the radio (TR-4C) and PSU might run at the elevated
> voltage
>>> levels but I suspect that it won't do much for the longevity of either.
> So it looks like I'm going to have to create a permanent
>>> auto-transformer
>>> arrangement to lower the mains voltage back down to 220vac.
>>> I'm thinking to try build one of these:-
>>> http://archive.siliconchip.com.au/cms/A_112364/article.html
>>> Anyway, mostly I'm just posting for posterity in the hope it may help
> someone else down the line who is trying to do the same thing. But any
> advice and guidance is always gratefully received!
>>> 73, Steve.
>>>> It's less work to disconnect at the feed-through. You just have to
> have a
>>>> light touch with the soldering iron. I've never broken one - you just
> need to not press too hard on it and not overheat it.
>>>> Steve Wedge, W1ES/4
>>>> Time flies like an arrow; fruit flies like a banana.
>>>> From: vk2sja@...
>>>> Sent: Sunday, February 02, 2014 12:12 AM
>>>> To: DrakeRadio@yahoogroups.com
>>>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>>> A question for someone more knowledgable than me (just about everyone
> :-).
>>>> The neutralization method Steve describes where you temporarilly
> disconnect the screen voltage (+250) to the PA cage.
>>>> Can this be safely done in the power supply? Or are other parts of the
> circuit dependent on the presence of +250v?
>>>> 73, Steve

>
>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

18521. "Hacked" R-4A's and FleaBay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 15:06:44 UTC
From: Steve Wedge
Topic: 18348 Message: 18521

Yep - we all have to remember that before these became collectible, they were pressed into service by hams who got them cheap because they were "old" or "obsolete". My first decent receiver in 1983 was an old R-4A that was dusty and crusty but started working well again after I cleaned the bandswitch contacts (I have to admit to using an eraser and "contact cleaner" back then :-o)

"Hacked" rigs can still be made to work as intended again, but you have to decide if some extra holes are important to you or not. Because I try and find restorable/fixable rigs to make some extra money, I tend to shy away from anything that had the chassis hacked. Front panels and covers can be easily replaced, with patience in waiting for them.

I looked at what the current bid is on this set and decided it probably would take too much work and parts. However, it will be a great deal for some of the folks on here who are limited in their ham budget.

I would point out to anyone looking in this range, that there's also a fairly decent R-4 with about the same amount of time left on the clock. I have found the R-4 to be the equal of the 13-tube R-4A, with the exception of the lack of vernier drive for the preselector. The 6AU6 PTO tube does a great job with sufficient warm-up time and really isn't bad from a cold start, truth be told. You can install a Jackson Drive in the R-4 if you drill one 3/16" to 1/4" hole in the chassis to mount the drive and cut off the existing shaft to accommodate the new drive. I have an R-4 right now that had this done and it's a good enough job that it may have been done by the factory. The R-4 in this auction also has quite a few auxiliary crystals and a B-Line PTO knob.

http://www.ebay.com/itm/Drake-R-4-Amateur-Radio-Receiver-/181313332920?pt=US_Ham_Radio_Receivers&hash=item2a371de6b8

$40 to ship to NC, so at almost $110, there's not enough "meat" on it for me.
Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: dcoffman@pdswireless.com
Sent: Thursday, January 30, 2014 7:55 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B with four tubes!

I'm all for experimentation, upgrades, improvements etc. but I absolutely hate to see people Jury Rig anything, especially one of these radios that so many work so hard to restore or preserve. Take a look at the speaker addition to the R-4A on EPay http://www.ebay.com/itm/Drake-R4A-HAM-Radio-Receiver-For-Parts-Or-Repair-/201028701269?pt=US_Ham_Radio_Receivers&hash=item2ece3e8c55 This one really makes me cringe.

18522. Re: [DrakeRadio] RE: New Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 15:11:46 UTC
From: Garey Barrell
Topic: 18511 Message: 18522

Mark -

Cool! Always nice when one 'wakes up' after a successful repair.

The cap change isn't particularly difficult. If at all possible take pictures of the area before you start. (Or you
could buy my CD!) Plus write down the color of the wires attached to each terminal. Note the identifiers cut into the
terminals on the new cap and be sure to orient the new one the same way. Best to cut the wires from the old cap as
close as you can to the terminals, rather than try to desolder them. The insulation on the wire used by Drake is
extremely heat sensitive, so you want a hot soldering iron so you can solder the new connections as quickly as possible.

The film caps C109, C126 and C163 rarely fail, and don't need to be replaced until they do, (if ever!) ALL the
electrolytics should be replaced and are in the kit from Tom.

Keep us informed as to how you are doing, and don't hesitate to come back for more encouragement if necessary!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

markhilliard@... wrote:
>
>
> Hey Garey;
>
> Good deal on the CDs. I thought I had all the switches in the correct spots but did not give the tubes a real close
> inspection so I pull the top off the R4B and pulled the tubes (well, not the one in the metal sleeve) to make sure the
> correct ones were in the proper socket. Reseated the tubes, shorted the mute, dimmed the room lights and switched the
> radio on.All the tubes lighted up and I zeroed the meter. Hooked it up to the T-4XB and meter works great. If only the
> cap change should go so smoothly.
>
> Thanks
>
> Mark

>
> Ka5ndh
>
>
>
>

18523. Hayseed Hamfest is back on track!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 18:25:32 UTC
From: Steve Wedge
Topic: 18523 Message: 18523

Just thought I'd let y'all know that Hayseed Hamfest is running on schedule again! Don't let the notice on their website put you off (and I've let Tom know he should change it).

I ordered a 2-B kit on Saturday and it was in my mailbox today!

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18524. Re: [DrakeRadio] Hayseed Hamfest is back on track!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-03 20:03:17 UTC
From: Richard Knoppow
Topic: 18523 Message: 18524

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, February 03, 2014 10:25 AM
Subject: [DrakeRadio] Hayseed Hamfest is back on track!

Just thought I'd let y'all know that Hayseed Hamfest is
running on schedule again! Don't let the notice on their
website put you off (and I've let Tom know he should change
it).

I ordered a 2-B kit on Saturday and it was in my mailbox
today!

73,

Steve Wedge, W1ES/4

I ordered and got a cap from Tom a few days ago. Came
in a couple of days. This a filter cap for an HQ-129-X.
BTW, it is surprising how many odd symptoms a bad filter cap
can cause. People think its just a lot of hum but bad
filters can also cause all sorts of spurious signals to
appear. In the right place they can also cause strange audio
response.
Tom is doing a tremendous service to the boatanchor
community. I recommend him without reservation.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18525. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 01:40:39 UTC
From: <kmx888@...>
Topic: 18439 Message: 18525

Well I got my answer on a replacement MN-2000 meter. 1-10 units $250 each. These are for ones that are close but not the original because those are out of production. Back to EBay for a W-4 to butcher I guess.
Kevin
KD0ILM/XV2KM

18526. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 02:46:00 UTC
From: Mike
Topic: 18439 Message: 18526

Whoa! Poopie!

Mike wb8vge

Sent from my iPhone

> On Feb 3, 2014, at 8:40 PM, <kmx888@...> wrote:
>
> Well I got my answer on a replacement MN-2000 meter. 1-10 units $250 each. These are for ones that are close but not the original because those are out of production. Back to EBay for a W-4 to butcher I guess.
>
> Kevin
> KD0ILM/XV2KM
>
>

18527. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 03:23:53 UTC
From: Jim Shorney
Topic: 18439 Message: 18527

Or keep looking for one of the meters from a Motorola repeater rack that is an exact mechanical substitute.

73

-Jim
NU0C

On 03 Feb 2014 17:40:39 -0800, kmx888@... wrote:

>Well I got my answer on a replacement MN-2000 meter. 1-10 units $250 each. These are for ones that are close but not the original because those are out of production. Back to EBay for a W-4 to butcher I guess.
> Kevin
>KD0ILM/XV2KM

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18528. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 03:36:28 UTC
From: Mike
Topic: 18439 Message: 18528

Jim,

Are those Motorola meters the same 200 ua?

What rack did they come out of.

Mike wb8vge

Sent from my iPhone

> On Feb 3, 2014, at 10:23 PM, "Jim Shorney" <jshorney@...> wrote:
>
>
> Or keep looking for one of the meters from a Motorola repeater rack that is an
> exact mechanical substitute.
>
> 73
>
> -Jim
> NU0C
>
>
>

18529. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 05:33:13 UTC
From: Jim Shorney
Topic: 18439 Message: 18529

The meter was a 50 uA taut-band movement, so a shunt resistance was needed to calibrate it. I have one in a WV-4 that came to me with a bad movement. The movement itself is an exact mechanical match from the same Jewell line. The casing was, IIRC, a four-hole mount vs. three hole, so I had to swap the case (and the scale, of course). It was easy to do. The only other differences are the pointer is black and the end of the pointer has a subtly different shape - not anything that a casual observer would ever notice; and the front cover had a grey lower portion instead of black. I used the front cover from the bad Drake meter, it fit exactly. I used a small trimpot in parallel and calibrated it against a known accurate meter. It has been in continuous service on my APRS digi ever since.

I have no idea what rack it came from. I bought it from an eBay seller because it looked very close in the pictures, and got lucky. Subsequently, another subscriber on Drakelist bought several and was offereing them for resale as a "kit" of sorts to replace W/WV-4 meters. I have no idea if he is still around or has any left.

I don't remember how much I paid for it either, but it seems to me that the combined cost of the bad WV-4 and the eBay replacement meter ended up being less than what a working WV-4 typically sells for. I see a lot of Jewell meters on ePay right now, some of which look at least a little similar, but I don't know if any of them could be adapted. It's possible that any Jewell/Honeywell MS2T meter may have a sensitive enough coil that the extra internal parts to turn it into a higher range voltmeter/ammeter could be removed and it could be made to work. The only one I have direct experience with was the one from a Motorola rack.

Here's a link to the original discussion:

http://www.mail-archive.com/drakelist@.../msg07273.html

73

-Jim
NU0C

On Mon, 3 Feb 2014 22:36:28 -0500, Mike wrote:

>Jim,
>
>Are those Motorola meters the same 200 ua?
>
>What rack did they come out of.
>
>Mike wb8vge
>

>Sent from my iPhone
>
>> On Feb 3, 2014, at 10:23 PM, "Jim Shorney" <jshorney@...> wrote:
>>
>>
>> Or keep looking for one of the meters from a Motorola repeater rack that is an
>> exact mechanical substitute.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>>
>>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18530. TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 21:57:00 UTC
From: k7mks@...
Topic: 18530 Message: 18530

Am restoring a TR-4C for a friend and am having trouble neutralizing the finals on 20m; all other bands including 10 & 15 are stable. Sylvania 6JB6's are NIB; swapping finals had identical problem. V6 Driver 12BY7 is a new RCA. Am puzzled and would appreciate comments.

Thanks joe k7mks

18531. Re: TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 22:39:17 UTC
From: k7mks@...
Topic: 18530 Message: 18531

I plan to change the 12BY7 to see if that is the problem.

Joe

----- Original Message -----

From: k7mks@...
To: drakeradio@yahoogroups.com
Sent: Tuesday, February 4, 2014 1:57:00 PM
Subject: TR-4C 20m neutralization

Am restoring a TR-4C for a friend and am having trouble neutralizing the finals on 20m; all other bands including 10 & 15 are stable. Sylvania 6JB6's are NIB; swapping finals had identical problem. V6 Driver 12BY7 is a new RCA. Am puzzled and would appreciate comments.

Thanks joe k7mks

18532. Re: [DrakeRadio] TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 22:40:59 UTC
From: Steve Wedge
Topic: 18530 Message: 18532

What are the symptoms? Sounds like you may have a parasitic oscillation.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: k7mks@...
Sent: Tuesday, February 04, 2014 4:57 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] TR-4C 20m neutralization

Am restoring a TR-4C for a friend and am having trouble neutralizing the finals on 20m; all other bands including 10 & 15 are stable. Sylvania 6JB6's are NIB; swapping finals had identical problem. V6 Driver 12BY7 is a new RCA. Am puzzled and would appreciate comments.

Thanks joe k7mks

18533. Re: [DrakeRadio] Meter Specs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-04 23:44:08 UTC
From: <kmx888@...>
Topic: 18439 Message: 18533

It only gets worse. I got this note from Ram today.

Kevin
Unfortunately after we looked at the dial it would cost way to much to do. We can get the Jewell MS2T 0-200 UADC but would have to use the dial you have. The price on the MS2T is $357.14 and 10 weeks to ship. Let me know What you would like to do.
Barb

I find that you can get a W-4 for about $50 (give or take) on EBay so that is what I am going to do. I have Jewell meters set up on E-Bay to notify me if one comes up but all that I see are for other uses. A good hawk eye and patience could probably net you a meter only. I successfully painted a pointer red one time but after all this am going to leave well enough alone at Black.
Kevin
KD0ILM/XV2KM

18534. TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 00:23:15 UTC
From: k7mks@...
Topic: 18530 Message: 18534

Removed RCA 12BY7 - installed Sylvania 12BY7. Problem went away!

joe k7mks

18535. Re: [DrakeRadio] TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 01:22:06 UTC
From: Richard Knoppow
Topic: 18530 Message: 18535

----- Original Message -----
From: <k7mks@...>
To: <drakeradio@yahoogroups.com>
Sent: Tuesday, February 04, 2014 4:23 PM
Subject: [DrakeRadio] TR-4C 20m neutralization

Removed RCA 12BY7 - installed Sylvania 12BY7. Problem went
away!

joe k7mks

Of course what we don't know is if the difference is
consistent with the brand or just the individual tubes.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18536. Re: [DrakeRadio] TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 03:10:49 UTC
From: k7mks@...
Topic: 18530 Message: 18536

Richard: You are correct. I'm just pleased the problem is history.

Joe k7mks

----- Original Message -----

From: "Richard Knoppow" <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, February 4, 2014 5:22:06 PM
Subject: Re: [DrakeRadio] TR-4C 20m neutralization

----- Original Message -----
From: <k7mks@...>
To: <drakeradio@yahoogroups.com>
Sent: Tuesday, February 04, 2014 4:23 PM
Subject: [DrakeRadio] TR-4C 20m neutralization

Removed RCA 12BY7 - installed Sylvania 12BY7. Problem went
away!

joe k7mks

Of course what we don't know is if the difference is
consistent with the brand or just the individual tubes.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18537. Re: [DrakeRadio] TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 03:14:49 UTC
From: GAREY - K4OAH
Topic: 18530 Message: 18537

Joe -

Check 12BY7. It's also neutralized, but it's fixed capacity. Soft tubes seem to 'un-neutralize' themselves, often on just one or two bands.

73, Garey - K4OAH
Glen Allen, VA

-----Original Message-----
From: k7mks@...
Sent: Feb 4, 2014 4:57 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] TR-4C 20m neutralization

Am restoring a TR-4C for a friend and am having trouble neutralizing the finals on 20m; all other bands including 10 & 15 are stable. Sylvania 6JB6's are NIB; swapping finals had identical problem. V6 Driver 12BY7 is a new RCA. Am puzzled and would appreciate comments.

Thanks joe k7mks

18538. Re: [DrakeRadio] TR-4C 20m neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 03:25:24 UTC
From: Garey Barrell
Topic: 18530 Message: 18538

Joe -

Check 12BY7 as you say. It's also neutralized, but it's fixed capacity. Soft tubes seem to 'un-neutralize' themselves,
often on just one or two bands.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k7mks@... wrote:
>
>
>
> Am restoring a TR-4C for a friend and am having trouble neutralizing the finals on 20m; all other bands including 10
> & 15 are stable. Sylvania 6JB6's are NIB; swapping finals had identical problem. V6 Driver 12BY7 is a new RCA. Am
> puzzled and would appreciate comments.
> Thanks joe k7mks
>
>
>

18539. Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 20:28:33 UTC
From: Joe W2KJ
Topic: 18539 Message: 18539

Howdy Drakesters:

I have sent several emails to Garey K4OAH using his standard email address:

Garey Barrell <k4oah@...>

All of my emails have been sent back to me as "unable to deliver"....it's as if his email address isn't being recognized.

Has anyone on this list successfully sent an email to Garey today using his above address??

Many thanks for any info.

73, Joe W2KJ
TR4CW/RIT, Drake C-line

18540. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 20:54:39 UTC
From: Chgypsy@...
Topic: 18539 Message: 18540

Mindspring could be iced out and there are a lot of lines frozen here and there. Carl WD8NHK

jotrom@... writes:

I have sent several emails to Garey K4OAH using his standard email address:

Garey Barrell <k4oah@...

18541. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 20:57:15 UTC
From: Bernie Roche
Topic: 18539 Message: 18541

I sent a test msg. to Garey, and he replied that it's working.

On Wed, Feb 5, 2014 at 3:28 PM, Joe W2KJ <jotrom@...> wrote:

>
>
> Howdy Drakesters:
>
> I have sent several emails to Garey K4OAH using his standard email address:
>
> Garey Barrell <k4oah@...>
>
> All of my emails have been sent back to me as "unable to deliver"....it's
> as if his email address isn't being recognized.
>
> Has anyone on this list successfully sent an email to Garey today using
> his above address??
>
> Many thanks for any info.
>
>
> 73, Joe W2KJ
> TR4CW/RIT, Drake C-line
>
>
>

--

Best Wishes,

Bernie Roche, CEC
VE3OTR / VA3OTR
Peel ARC ARES
Accredited Examiner, Industry Canada
Canwarn Radio Net Controller
CITIG member

(416) 435-0423 cell
VE3OTR@...

Communicare, Resolvere, Perficere
We Communicate, We Complete, WE GET THINGS DONE

18542. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 21:15:09 UTC
From: vacuuminded2@...
Topic: 18539 Message: 18542

Read the entirety of your "can not be delivered" message and see just who/what is bouncing your email. It's very possible your IP is listed on whatever spam remover Mindspring uses. It's happened to all of us at one time or another. I couldn't get a message through ARRL's email reflector for the longest time. Had to cleanse my entire computer before the problem finally went away. Damn hackers.

Chris

Sent from my outdated iPhone wireless thingy

On Feb 5, 2014, at 2:57 PM, Bernie Roche <ve3otr@...> wrote:

> I sent a test msg. to Garey, and he replied that it's working.
>
>
>
> On Wed, Feb 5, 2014 at 3:28 PM, Joe W2KJ <jotrom@...> wrote:
>>
>> Howdy Drakesters:
>>
>> I have sent several emails to Garey K4OAH using his standard email address:
>>
>> Garey Barrell <k4oah@...>
>>
>> All of my emails have been sent back to me as "unable to deliver"....it's as if his email address isn't being recognized.
>>
>> Has anyone on this list successfully sent an email to Garey today using his above address??
>>
>> Many thanks for any info.
>>
>>
>> 73, Joe W2KJ
>> TR4CW/RIT, Drake C-line
>
>
>
> --
> Best Wishes,
>
> Bernie Roche, CEC
> VE3OTR / VA3OTR
> Peel ARC ARES
> Accredited Examiner, Industry Canada
> Canwarn Radio Net Controller

> CITIG member
>
> (416) 435-0423 cell
> VE3OTR@GMAIL.COM
>
> Communicare, Resolvere, Perficere
> We Communicate, We Complete, WE GET THINGS DONE
>

18543. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-05 21:22:21 UTC
From: Joe W2KJ
Topic: 18539 Message: 18543

Many thanks...guess I will wait until tomorrow and try again.

73, Joe W2KJ

On Feb 5, 2014, at 3:57 PM, Bernie Roche wrote:

>
> I sent a test msg. to Garey, and he replied that it's working.
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> On Wed, Feb 5, 2014 at 3:28 PM, Joe W2KJ <jotrom@...> wrote:
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> 73, Joe W2KJ
> TR4CW/RIT, Drake C-line
>

18544. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-06 00:13:11 UTC
From: James Scribner
Topic: 18539 Message: 18544

Joe W2KJ
I did a couple of weeks ago with no problem when I purchased a CD product from him.
Which, by the way, I find to be a very valuable aid in the repair and maintenance of the Drake radio. Many hours had to go into a product of this nature. I recommend it to everyone! (Unsolicited commercial) HiHi!

73
Jim
W5SWM

18545. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-06 04:22:20 UTC
From: Richard Knoppow
Topic: 18539 Message: 18545

----- Original Message -----
From: <Chgypsy@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 05, 2014 12:54 PM
Subject: Re: [DrakeRadio] Garey Barrell's email address
kicking back

> Mindspring could be iced out and there are a lot of lines
> frozen here and
> there. Carl WD8NHK

I am on Netcom, another Earthlink company like
Mindspring. Yesterday my internet including the web and
e-mail went out for about half an hour. It could have been
my machine. I rebooted and was able to connect again but had
some problems later. There may be something on the Earthlink
web site.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18546. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-06 14:45:53 UTC
From: Garey Barrell
Topic: 18539 Message: 18546

Something is going on, per this notice yesterday. I experienced difficulty sending email, and obviously some mail to me
was bounced.

>>>>>>>>>

We are currently experiencing high call volume indicative of an email outage. We are currently investigating further and
apologize for the inconvenience. Please continue to check this site for updates.

>>>>>>>>>>

This is what is currently posted, from yesterday about 1130 E.

I have received a couple of 'second try' messages, so it appears to be fixed, at least 'sorta' fixed!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

18547. RE: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-06 15:26:14 UTC
From: Doug Coffman
Topic: 18539 Message: 18547

Someone has been very busy writing some interesting code. I use two different email servers and both were down for two or three days two weeks ago. Both servers had over 400,000 emails stuck in their spam filters; the servers were trying to digest them and ultimately shut down the servers. The admin's had to manually remove the email from the spam folders; the system started working after two days but the email system is still slow as of today. There was a new infiltration that turned a bunch of the customer's computers into email spam servers sending untold amount of traffic to the email system.

I'm sure it's another Chinese college class project.

73,

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Thursday, February 6, 2014 9:46 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Garey Barrell's email address kicking back

Something is going on, per this notice yesterday. I experienced difficulty sending email, and obviously some mail to me
was bounced.

>>>>>>>>>

We are currently experiencing high call volume indicative of an email outage. We are currently investigating further and
apologize for the inconvenience. Please continue to check this site for updates.

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This is what is currently posted, from yesterday about 1130 E.

I have received a couple of 'second try' messages, so it appears to be fixed, at least 'sorta' fixed!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18548. Knob needed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-06 22:54:43 UTC
From: Bob Jackson
Topic: 18548 Message: 18548

I need a small knob for an SW-4A. Any help appreciated. Thanks & 73.

Bob AG5X
Whitehouse, TX

18549. TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 00:57:27 UTC
From: Marco B.
Topic: 18549 Message: 18549

Hello you beautiful DRAKE people!
Having joined this wonderful group less than 2 weeks ago and absorbed all the great information that has been passed around, I admire the dedication and contribution shared by all!

My simple question (at the risk of getting whipped on the whipping post) is, how important is using an alignment load? How bad is it to carry on as instructed without it?

Marco

18550. Plastic Faceplate Covering?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:07:47 UTC
From: Steve VK2SJA
Topic: 18549 Message: 18550

Question:-

Does anyone know if Drake ever cover the face-plates with plastic at the factory. Similar to what Yaesu did with the FT101 line?

18551. Re: [DrakeRadio] Plastic Faceplate Covering?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:17:30 UTC
From: L L bahr
Topic: 18549 Message: 18551

NO, they did not cover them.

Lee, w0vt

----- Original Message -----

From: "Steve VK2SJA" <vk2sja@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, February 6, 2014 7:07:47 PM
Subject: [DrakeRadio] Plastic Faceplate Covering?

Question:-

Does anyone know if Drake ever cover the face-plates with plastic at the factory. Similar to what Yaesu did with the FT101 line?

18552. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:21:43 UTC
From: L L bahr
Topic: 18549 Message: 18552

Personally I have found no difference using the load or not using it. Seems like a waste of time to me.

Lee, w0vt

Hello you beautiful DRAKE people!
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Marco

18553. Re: [DrakeRadio] Plastic Faceplate Covering?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:33:57 UTC
From: Chgypsy@...
Topic: 18549 Message: 18553

vk2sja@... writes:

Does anyone know if Drake ever cover the face-plates with plastic at the factory.
I never saw or heard of any Drake piece with a plastic cover. WD8NHK

18554. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:40:06 UTC
From: Steve VK2SJA
Topic: 18549 Message: 18554

The following text comes from the "Drake Mods" version 6 file:-

" o Transmitter Driver Alignment

Drake goes into considerable detail on use of a loading network to
align the 4 series transmitters. Don't bother. Just align carefully
for maximum transmitter output at a low drive level.

The reason for this network is to simulate the loading when the
units are used in transceive. The better method is to slave the
units with the covers off both the receiver and transmitter and
align. This is much faster and much safer than playing with the
loading network method. There is some serious voltage inside these
units. Align each individual unit and then align in transceive both
ways - active PTO in the receiver for the transmitter and con-
versely. When setting up in transceive, you really only need to
touch up the most rear trimmer bank in the receiver and the front
bank in the transmitter. It is not as much a pain as you would think
and once set, you're done almost for life.

The loading network method is a waste of time. Information relayed
to me from the Drake User group indicates that even Drake themselves
does not bother with the loading network any more."

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> as instructed without it?
>
>
> Marco
>
>
>

18555. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:42:25 UTC
From: Garey Barrell
Topic: 18549 Message: 18555

Marco -

There is a reason to use the alignment load as specified. The transformers being aligned are 'overcoupled' to provide a
wider bandwidth.

WITH the alignment load, you can tune the 'other' side for a peak. Reversing the load allows you to tune the 'other'
coil for a peak. The result is 'two' peaks, slightly apart from each other, and the overcoupling pushes up the area
between them. The result is a broader bandwidth.

WITHOUT the load, you peak the two coils, each of which affects the tuning of the other and you end up with a narrower,
single peak, i.e., a narrower bandwidth.

You can see the effect with a spectrum analyzer, but all it means is that the PreSelector / RF TUNE controls are both
sharper tuning, and most users don't know the difference!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Marco B. wrote:
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> How bad is it to carry on as instructed without it?
>
> Marco
>

18556. Meter Face Scans in Files Area

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:52:15 UTC
From: <kmx888@...>
Topic: 18556 Message: 18556

I have been changing the meter from a W4 Wattmeter into a MN-2000 meter. Because of this I have had both faces removed from the meters. Both are in good shape so I scanned them both and put the files in the file section. Hopefully someday someone might be desperate for a meter face and can print one off.
Kevin
KD0ILM/XV2KM

18557. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 01:52:24 UTC
From: Garey Barrell
Topic: 18549 Message: 18557

I disagree....

I felt the same way for some years, probably influenced by misinformation in the Drakemod 6. While it IS the
definitive document on the Drake gear of the era, it is NOT totally accurate.

The loading network used in alignment has nothing to do with the transceive alignment, other than causing both units to
have a wider 'resonant' area when transceiving on other than exact 'transceive'. This is often why when transceiving
BOTH the PreSelector and the RF TUNE peak separately in two different directions from the SEPARATE settings.

There is plenty of information in reliable references about 'overcoupling' and it's effects.

Again, most users never know the difference!

I DO agree on the alignment of the INJ circuits with the two units cabled together, that is definitely worthwhile...

73, Garey - K4OAH
Glen Allen, VA

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> for maximum transmitter output at a low drive level.
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> The reason for this network is to simulate the loading when the
> units are used in transceive. The better method is to slave the
> units with the covers off both the receiver and transmitter and
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> loading network method. There is some serious voltage inside these
> units. Align each individual unit and then align in transceive both
> ways - active PTO in the receiver for the transmitter and con-
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> touch up the most rear trimmer bank in the receiver and the front

> bank in the transmitter. It is not as much a pain as you would think
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>> is,? how important is using? an? alignment load? How bad is it to carry on
>> as instructed without it?
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>>
>> Marco
>>
>>

18558. MN-2000

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 02:00:52 UTC
From: <kmx888@...>
Topic: 606 Message: 18558

I just installed a meter from the W4 Wattmeter into an MN-2000 by changing the meter face. My W4 came in the three bolt pattern with a red pointer so it could not have been easier. However......Prior to my surgury the tuner worked great and would tune my antenna right down to 1:1. Now however the best I can do is 3:1 or so depending upon the band. I substituted an old MFJ that I have and it worked great so I can eliminate the feed cable and antenna.

The only other thing that I touched was to remove and replace a ground strap from one variable cap to the other. Can't to it wrong. Before I rip into this to find whatever it was I caused to happen, does anyone have any ideas of dumb things they have done to cause this problem?
Best,
Kevin
KD0ILM/XV2KM

18559. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 02:21:24 UTC
From: Steve Wedge
Topic: 18549 Message: 18559

I don't use them.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Feb 6, 2014, at 8:21 PM, "L L bahr " <pulsarxp@...> wrote:
>
> Personally I have found no difference using the load or not using it. Seems like a waste of time to me.
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> Lee, w0vt
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> Marco
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>

18560. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 02:30:42 UTC
From: Marco B.
Topic: 18549 Message: 18560

I knew this would have brought "thrills" from every opinion out there and my intention wasn't to rattle the cage. Please forgive me. My mentor that has helped me (I'm a truck driver) with the education of ham radio and electronics passed away. He never believe in the alignment load stating the trouble is so minimal.... why not get new tubes!!
So basically, I spilled the beans and hope I haven't insulted anyone but this is how I have been doing it since 1992.

BTW I made 2 new countries today.. St Lucia & Guyana which makes my total 78 for the DXCC on my simple dipole through out these years. My most memorable contact was January 14th 1994 with AR1AK in Pakistan on 80 meters! This radio is a monster compared to newer rigs these days!
Cheers!
Marco

On Thursday, February 6, 2014 8:52:27 PM, Garey Barrell <k4oah@...> wrote:

I disagree....

I felt the same way for some years, probably influenced by misinformation in the Drakemod 6. While it IS the
definitive document on the Drake gear of the era, it is NOT totally accurate.

The loading network used in alignment has nothing to do with the transceive alignment, other than causing both units to
have a wider 'resonant' area when transceiving on other than exact 'transceive'. This is often why when transceiving
BOTH the PreSelector and the RF TUNE peak separately in two different directions from the SEPARATE settings.

There is plenty of information in reliable references about 'overcoupling' and it's effects.

Again, most users never know the difference!

I DO agree on the alignment of the INJ circuits with the two units cabled together, that is definitely worthwhile...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> Marco

>>
>>

18561. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 02:56:59 UTC
From: Garey Barrell
Topic: 18549 Message: 18561

Marco -

A little concerned about your statement, 'just get new tubes'..... 'New tubes' are not an option to alignment, in fact
new tubes are the primary reason FOR alignment. Alignment is there to compensate for component aging, AND for variations
in tubes!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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18562. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 03:03:27 UTC
From: Steve Wedge
Topic: 18549 Message: 18562

Absolutely.

Without changing tubes, alignments should only require minimal tweaking. One should be able to go for years without changing the alignment.

Sample size of 1, admittedly, but that R-4 I had last year was like brand new. It probably sat in an SK's closet for 45 years. I hardly had to touch any adjustments when I checked it.

Most rigs I've received that haven't been hacked are usually very close.

Tubes had more variation than our modern solid state components.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Feb 6, 2014, at 9:56 PM, Garey Barrell <k4oah@...> wrote:
>
> Marco -
>
> A little concerned about your statement, 'just get new tubes'..... 'New tubes' are not an option to alignment, in fact
> new tubes are the primary reason FOR alignment. Alignment is there to compensate for component aging, AND for variations
> in tubes!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Marco B. wrote:
> >
> >
> > I knew this would have brought "thrills" from every opinion out there and my intention wasn't to rattle the cage.
> > Please forgive me. My mentor that has helped me (I'm a truck driver) with the education of ham radio and electronics
> > passed away. He never believe in the alignment load stating the trouble is so minimal.... why not get new tubes!!
> > So basically, I spilled the beans and hope I haven't insulted anyone but this is how I have been doing it since 1992.
> >
> > BTW I made 2 new countries today.. St Lucia & Guyana which makes my total 78 for the

DXCC on my simple dipole through
> > out these years. My most memorable contact was January 14th 1994 with AR1AK in Pakistan on 80 meters! This radio is a
> > monster compared to newer rigs these days!
> > Cheers!
> > Marco
> >
> >
> > On Thursday, February 6, 2014 8:52:27 PM, Garey Barrell <k4oah@...> wrote:
> > I disagree....
> >
> > I felt the same way for some years, probably influenced by misinformation in the Drakemod 6. While it IS the
> > definitive document on the Drake gear of the era, it is NOT totally accurate.
> >
> > The loading network used in alignment has nothing to do with the transceive alignment, other than causing both units to
> > have a wider 'resonant' area when transceiving on other than exact 'transceive'. This is often why when transceiving
> > BOTH the PreSelector and the RF TUNE peak separately in two different directions from the SEPARATE settings.
> >
> > There is plenty of information in reliable references about 'overcoupling' and it's effects.
> >
> > Again, most users never know the difference!
> >
> > I DO agree on the alignment of the INJ circuits with the two units cabled together, that is definitely worthwhile...
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
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> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Steve VK2SJA wrote:
> > > The following text comes from the "Drake Mods" version 6 file:-
> > >
> > >
> > > " o Transmitter Driver Alignment
> > >
> > > Drake goes into considerable detail on use of a loading network to
> > > align the 4 series transmitters. Don't bother. Just align carefully
> > > for maximum transmitter output at a low drive level.
> > >
> > > The reason for this network is to simulate the loading when the
> > > units are used in transceive. The better method is to slave the
> > > units with the covers off both the receiver and transmitter and
> > > align. This is much faster and much safer than playing with the

> > > loading network method. There is some serious voltage inside these
> > > units. Align each individual unit and then align in transceive both
> > > ways - active PTO in the receiver for the transmitter and con-
> > > versely. When setting up in transceive, you really only need to
> > > touch up the most rear trimmer bank in the receiver and the front
> > > bank in the transmitter. It is not as much a pain as you would think
> > > and once set, you're done almost for life.
> > >
> > > The loading network method is a waste of time. Information relayed
> > > to me from the Drake User group indicates that even Drake themselves
> > > does not bother with the loading network any more."
> > >
> > >
> > >
> > >> Personally I have found no difference using the load or not using it.Â
> > >> Seems like a waste of time to me.
> > >>
> > >> Lee, w0vt
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> > >>
> > >> Hello you beautiful DRAKEÂ people!
> > >> Having joined this wonderful group less than 2 weeks ago and absorbed all
> > >> the great information that has been passed around, I admire the dedication
> > >> and contribution shared by all!
> > >>
> > >>
> > >> My simple question (at the risk of getting whipped on the whipping post)
> > >> is,Â how important is usingÂ anÂ alignment load? How bad is it to carry on
> > >> as instructed without it?
> > >>
> > >>
> > >> Marco
> > >>
>
>

18563. Re: [DrakeRadio] MN-2000

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 03:07:17 UTC
From: Mike
Topic: 606 Message: 18563

Just off the tip of my head.

But the new meter may require the swr sensor to be recalibrated.

Yeah, both 200 ua...

But..., anyway a thought

Are you checking with a external mete? To verify what you're seeing on the drake?

Mike wb8vge

Sent from my iPhone

> On Feb 6, 2014, at 9:00 PM, <kmx888@...> wrote:
>
> I just installed a meter from the W4 Wattmeter into an MN-2000 by changing the meter face. My W4 came in the three bolt pattern with a red pointer so it could not have been easier. However......Prior to my surgury the tuner worked great and would tune my antenna right down to 1:1. Now however the best I can do is 3:1 or so depending upon the band. I substituted an old MFJ that I have and it worked great so I can eliminate the feed cable and antenna.
>
>
> The only other thing that I touched was to remove and replace a ground strap from one variable cap to the other. Can't to it wrong. Before I rip into this to find whatever it was I caused to happen, does anyone have any ideas of dumb things they have done to cause this problem?
> Best,
> Kevin
> KD0ILM/XV2KM
>

18564. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 03:12:29 UTC
From: Marco B.
Topic: 18549 Message: 18564

Gary... that statement was probably wrong. I know he wanted me to enjoy my radio with as little fuss as can be. He'll always be my hero.
73,
Marco

On Thursday, February 6, 2014 9:56:44 PM, Garey Barrell <k4oah@mindspring.com> wrote:

Marco -

A little concerned about your statement, 'just get new tubes'..... 'New tubes' are not an option to alignment, in fact
new tubes are the primary reason FOR alignment. Alignment is there to compensate for component aging, AND for variations
in tubes!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Marco B. wrote:
>
>
> I knew this would have brought "thrills" from every opinion out there and my intention wasn't to rattle the cage.
> Please forgive me. My mentor that has helped me (I'm a truck driver) with the education of ham radio and electronics
> passed away. He never believe in the alignment load stating the trouble is so minimal.... why not get new tubes!!
> So basically, I spilled the beans and hope I haven't insulted anyone but this is how I have been doing it since 1992.
>
> BTW I made 2 new countries today.. St Lucia & Guyana which makes my total 78 for the DXCC on my simple dipole through
> out these years. My most memorable contact was January 14th 1994 with AR1AK in Pakistan on 80 meters! This radio is a
> monster compared to newer rigs these days!
> Cheers!
> Marco
>
>
> On Thursday, February 6, 2014 8:52:27 PM, Garey Barrell <k4oah@...> wrote:
> I disagree....
>

> I felt the same way for some years, probably influenced by misinformation in the Drakemod 6. While it IS the
> definitive document on the Drake gear of the era, it is NOT totally accurate.
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> The loading network used in alignment has nothing to do with the transceive alignment, other than causing both units to
> have a wider 'resonant' area when transceiving on other than exact 'transceive'. This is often why when transceiving
> BOTH the PreSelector and the RF TUNE peak separately in two different directions from the SEPARATE settings.
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> There is plenty of information in reliable references about 'overcoupling' and it's effects.
>
> Again, most users never know the difference!
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> I DO agree on the alignment of the INJ circuits with the two units cabled together, that is definitely worthwhile...
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> > align the 4 series transmitters. Don't bother. Just align carefully
> > for maximum transmitter output at a low drive level.
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> > The reason for this network is to simulate the loading when the
> > units are used in transceive. The better method is to slave the
> > units with the covers off both the receiver and transmitter and
> > align. This is much faster and much safer than playing with the
> > loading network method. There is some serious voltage inside these
> > units. Align each individual unit and then align in transceive both
> > ways - active PTO in the receiver for the transmitter and con-
> > versely. When setting up in transceive, you really only need to
> > touch up the most rear trimmer bank in the receiver and the front
> > bank in the transmitter. It is not as much a pain as you would think
> > and once set, you're done almost for life.
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> > The loading network method is a waste of time. Information relayed
> > to me from the Drake User group indicates that even Drake themselves

> > does not bother with the loading network any more."
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> >> Personally I have found no difference using the load or not using it.Â
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> >> the great information that has been passed around, I admire the dedication
> >> and contribution shared by all!
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> >> My simple question (at the risk of getting whipped on the whipping post)
> >> is,Â how important is usingÂ anÂ alignment load? How bad is it to carry on
> >> as instructed without it?
> >>
> >>
> >> Marco
> >>

18565. Re: [DrakeRadio] Garey Barrell's email address kicking back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 05:42:33 UTC
From: Richard Knoppow
Topic: 18539 Message: 18565

FWIW, Earthlink just had another long system outage.
Probably an hour. No e-mail or web services. They say they
are still having a problem with Yahoo accounts. No details.
There was a similar outage a couple of days ago. Mindspring
and Netcom are Earthlink brands along with a lot of others.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18566. Re: [DrakeRadio] MN-2000

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 07:00:24 UTC
From: <kmx888@...>
Topic: 606 Message: 18566

Yes I am using a known to be good independent SWR meter. I haven't even thought about checking the accuracy of the meter I put in. I am sure the problem is something within the tuner itself. It is such a simple and built like a tank unit that I am puzzled. I guess I just need to take it apart again and see what I missed. My guess is that it must be something obvious.
Kevin
KD0ILM/XV2KM

18567. Re: [DrakeRadio] MN-2000

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 11:11:57 UTC
From: David Stinson
Topic: 606 Message: 18567

----- Original Message -----
From: <kmx888@...>
>....Now however the best I can do is 3:1 or so depending upon
>the band.

First, put a separate SWR bridge in line right before the tuner
and see if that 3:1 is real.

18568. Re: [DrakeRadio] Plastic Faceplate Covering?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 12:39:46 UTC
From: Steve Wedge
Topic: 18549 Message: 18568

I think I know where this question came from. I saw some C-Line sets on eBay where the seller was claiming it has this.

Perhaps he has some of those plastic dustcovers that have been on the aftermarket forever.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Chgypsy@...
Sent: Thursday, February 06, 2014 8:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Plastic Faceplate Covering?

vk2sja@... writes:
Does anyone know if Drake ever cover the face-plates with plastic at the factory.
I never saw or heard of any Drake piece with a plastic cover. WD8NHK

18569. Re: [DrakeRadio] List & Yahoo ???

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 13:10:52 UTC
From: Chgypsy@...
Topic: 18569 Message: 18569

1oldlens1@... writes:

They say they
are still having a problem with Yahoo accounts.
Interesting as a couple of days ago the local newscast said Yahoo got
hacked shades of Targe't and advised to change your password if you used Yahoo.
Carl WD8nhk

No details. There was a similar outage a couple of days ago. Mindspring
and Netcom are Earthlink brands along with a lot of others.

18570. Re: [DrakeRadio] List & Yahoo ???

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 16:09:53 UTC
From: Richard Knoppow
Topic: 18569 Message: 18570

----- Original Message -----
From: <Chgypsy@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 07, 2014 5:10 AM
Subject: Re: [DrakeRadio] List & Yahoo ???

>
>
> 1oldlens1@... writes:
>
> They say they
> are still having a problem with Yahoo accounts.
> Interesting as a couple of days ago the local newscast
> said Yahoo got
> hacked shades of Targe't and advised to change your
> password if you used Yahoo.
> Carl WD8nhk

There was nothing further on the Earthlink support site,
we can only speculate on the cause.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18571. Re: [DrakeRadio] Plastic Faceplate Covering?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-07 16:51:38 UTC
From: Joe - W7RKN
Topic: 18549 Message: 18571

All Yaesu FT-101 lines and accessories came with factory plastic over the entire faceplate.....A few years back, I had an FT101E that still had the plastic intact...sold it for a C-Note more than the going price because of the plastic!

Joe - W7RKN
----- Original Message -----
From: Steve Wedge
Subject: Re: [DrakeRadio] Plastic Faceplate Covering?

I think I know where this question came from. I saw some C-Line sets on eBay where the seller was claiming it has this.

Perhaps he has some of those plastic dustcovers that have been on the aftermarket forever.

18572. T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 01:42:05 UTC
From: Robert Logan
Topic: 606 Message: 18572

I just purchased a new inj cable and intend to do a proper alignment but am a little confused by a recent post about it.

I understand cabling both units together during alignment. But do I peak each unit separately and stop there or then re-peak them again in transceive with xmtr controlling and then receiver controlling? Thanks for any advice. Bob, NZ5A

Sent from my iPhone

18573. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 01:43:42 UTC
From: Robert Logan
Topic: 606 Message: 18573

Sorry, title should have been: T-4XC/R4B

Sent from my iPhone

On Feb 7, 2014, at 7:42 PM, Robert Logan <bob.logan47@...> wrote:

I just purchased a new inj cable and intend to do a proper alignment but am a little confused by a recent post about it.

I understand cabling both units together during alignment. But do I peak each unit separately and stop there or then re-peak them again in transceive with xmtr controlling and then receiver controlling? Thanks for any advice. Bob, NZ5A

Sent from my iPhone

18574. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 02:05:25 UTC
From: Steve Wedge
Topic: 606 Message: 18574

You *** could *** peak everything when they're connected together. But, if the alignment's properly done, you really shouldn't have enough of a discrepancy to make that necessary.

You will not get the lock of the carrier oscillator that's available with the T-4XC, using the R-4B. Treat the transmitter as if it's a B-Line and adjust C61 on the receiver to be on-frequency with the T-4XC.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Robert Logan
Sent: Friday, February 07, 2014 8:43 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC

Sorry, title should have been: T-4XC/R4B

Sent from my iPhone

On Feb 7, 2014, at 7:42 PM, Robert Logan <bob.logan47@...> wrote:

I just purchased a new inj cable and intend to do a proper alignment but am a little confused by a recent post about it.

I understand cabling both units together during alignment. But do I peak each unit separately and stop there or then re-peak them again in transceive with xmtr controlling and then receiver controlling? Thanks for any advice. Bob, NZ5A

Sent from my iPhone

18575. Re: [DrakeRadio] TR-4 Alignment question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 07:33:44 UTC
From: Richard Knoppow
Topic: 18549 Message: 18575

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, February 06, 2014 5:42 PM
Subject: Re: [DrakeRadio] TR-4 Alignment question

> Marco -
>
> There is a reason to use the alignment load as specified.
> The transformers being aligned are 'overcoupled' to
> provide a
> wider bandwidth.
>
> WITH the alignment load, you can tune the 'other' side for
> a peak. Reversing the load allows you to tune the 'other'
> coil for a peak. The result is 'two' peaks, slightly
> apart from each other, and the overcoupling pushes up the
> area
> between them. The result is a broader bandwidth.
>
> WITHOUT the load, you peak the two coils, each of which
> affects the tuning of the other and you end up with a
> narrower,
> single peak, i.e., a narrower bandwidth.
>
> You can see the effect with a spectrum analyzer, but all
> it means is that the PreSelector / RF TUNE controls are
> both
> sharper tuning, and most users don't know the difference!!
> :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA

FWIW, Collins uses the same method for aligning the IF transformers in the 51J series receivers. These are slightly overcoupled to improve the skirt selectivity and produce a relatively flat-topped pass-band. They will not tune quite right if just peaked. I wish RCA had done this for the AR-88 which has two stages of overcoupled IF each with four transformers. Its possible to align it without a sweeper but is tedious. If not loaded while adjusting the two sides of an overcoupled transformer interact so the peak moves around.
The problem with overcoupled transformers is that the

resonance splits up into two peaks. Depending on how the mutual coupling is produced the peaks may be symmetrical about the center frequency or may have one at the resonance of the basic transformer and a second displaced in one direction. Pure mutual inductance will produce a symmetrical shape. By using a combination of overcoupled and critically coupled stages a relatively flat topped pass band with significantly steeper skirts is produced than one would get from the same number of critically coupled stages. The Super-Pro and SP-600 used this system but are easier to align because all the stages can be switched to critical coupling with a single peak. Some WW-2 military receivers had mechanical adjustment of coupling so that they could be aligned by simple peaking and then set for overcoupling.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18576. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 07:50:17 UTC
From: Richard Knoppow
Topic: 606 Message: 18576

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 07, 2014 6:05 PM
Subject: Re: [DrakeRadio] T-4XC

You *** could *** peak everything when they're connected together. But, if the alignment's properly done, you really shouldn't have enough of a discrepancy to make that necessary.

You will not get the lock of the carrier oscillator that's available with the T-4XC, using the R-4B. Treat the transmitter as if it's a B-Line and adjust C61 on the receiver to be on-frequency with the T-4XC.

73,

Steve Wedge, W1ES/4

FWIW, I use an R4B and T4XB and run them in transceive on WARC bands, 160 meters and to extend `10 meters. the system works very well. I have extra crystals in the receiver only because it takes quite a few more than the transmitter. It is a mild inconvenience not to have separate tuning but only that. The system used in the C versions is better but its possible to get the B line to be so close that you can't really tell. I may put additional crystals into the TX for 10 meters because the segment most used, at least locally, is not the segment covered by the factory crystal. Meanwhile the transceive function covers it fine.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18577. Re: [DrakeRadio] List & Yahoo ???

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-08 19:42:55 UTC
From: Richard Knoppow
Topic: 18569 Message: 18577

----- Original Message -----
From: "Richard Knoppow" <1oldlens1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 07, 2014 8:09 AM
Subject: Re: [DrakeRadio] List & Yahoo ???

Earthlink had a problem again this morning. It appears
they lost the DNS server so nothing worked. Gone for about
an hour. This may be the same machine that went down a
couple of days ago.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18578. WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-09 01:11:34 UTC
From: Bob Jackson
Topic: 18578 Message: 18578

Pristine faceplate for SW-4A

Bob AG5X
Whitehouse, TX

18579. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-09 01:52:32 UTC
From: Robert Logan
Topic: 606 Message: 18579

I'm not asking about locking frequencies or getting them close---or am I?

My question, I thought, was about tweaking the injection trimmers for max out as per the manual. Gary suggested that both units be cabled together when you peak the trimmers. I did that and peaked each unit separately. Worked fine.

Then a recent post seemed to suggest that you repeal for max out in transceiver mode.

Do I need to do the re-peak in transceive mode too? That's what I was trying to ask. Maybe it didn't come out right.

I had an R-4C and t-4XC before; I understand only those two models locked together in terms of frequency.

Hopefully this clarifies things a little.

Bob

Sent from my iPhone

On Feb 7, 2014, at 8:05 PM, "Steve Wedge" <w1es1982@triad.rr.com> wrote:

You *** could *** peak everything when they're connected together. But, if the alignment's properly done, you really shouldn't have enough of a discrepancy to make that necessary.

You will not get the lock of the carrier oscillator that's available with the T-4XC, using the R-4B. Treat the transmitter as if it's a B-Line and adjust C61 on the receiver to be on-frequency with the T-4XC.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Robert Logan
Sent: Friday, February 07, 2014 8:43 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC

Sorry, title should have been: T-4XC/R4B

Sent from my iPhone

On Feb 7, 2014, at 7:42 PM, Robert Logan <bob.logan47@yahoo.com> wrote:

I just purchased a new inj cable and intend to do a proper alignment but am a little confused by a recent post about it.

I understand cabling both units together during alignment. But do I peak each unit separately and stop there or then re-peak them again in transceive with xmtr controlling and then receiver controlling? Thanks for any advice. Bob, NZ5A

Sent from my iPhone

18580. 2B chassis free to good home

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 03:50:50 UTC
From: Rich Arland
Topic: 18580 Message: 18580

Hey, gang....

KL0SW gave me a 2B carcass last year at Dayton, in the event I needed some parts for my 2B restoration. I have my 2B perking along just fine so now I need to find a good home for this carcass. There is no meter, the dial string and pointer are intact. No tubes. But someone might need some of the cans, etc, off this old warhorse. So if you need it, drop me a line OFF LIST and we'll get this on its way. OBTW: shipping will be up to the lucky recipient.

Rich Arland
K7SZ
WPE7BYR
Bent Dipole Ranch, Dacula, GA

Author: "The ARRL's Low Power Communications, the Art and Science of QRP" (all 4 editions)

Blog: http://commobunker.blogspot.com/

"Faith is not about everything turning out ok. It's about being ok, no matter how things turn out."

18581. TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 20:46:55 UTC
From: <damico@...>
Topic: 18581 Message: 18581

Hello Group,
I am in the process of aligning the Noise Blanker of my TR7; I have the extenders and all the tools. The problem is that the copy of the service manual that I have has low quality images, and I cannot locate with confidence the position of the "test point" on the board... it seems to be one end of C821, but if someone can confirm that, I would feel more confident :-)
Thanks for your support !

73, Michele IZ2EAS

18582. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 21:01:46 UTC
From: Dieter Horst
Topic: 18581 Message: 18582

Hi Michele,
there are two versions. Which one do you have? Version 2 has a coax on
the component side which version 1 does not have.
73, Dieter DL5RDO

Am 10.02.2014 21:46, schrieb damico@...:
>
>
> Hello Group,
>
> I am in the process of aligning the Noise Blanker of my TR7; I have
> the extenders and all the tools. The problem is that the copy of the
> service manual that I have has low quality images, and I cannot locate
> with confidence the position of the "test point" on the board... it
> seems to be one end of C821, but if someone can confirm that, I would
> feel more confident :-)
>
> Thanks for your support !
>
>
> 73, Michele IZ2EAS
>
>
>

18583. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 21:09:37 UTC
From: <damico@...>
Topic: 18581 Message: 18583

Hello Dieter,
since there is a short piece of gray coax, I assume it is version 2....
Thanks,

Michele

18584. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 21:37:30 UTC
From: Chgypsy@...
Topic: 18581 Message: 18584

Hi Michele,
This may help a bit. See attached copied from _www.WB4HFN.com_
(http://www.WB4HFN.com)
Carl wd8nhk

damico@... writes:

Hello Group,
I am in the process of aligning the Noise Blanker of my TR7; I have the
extenders and all the tools. The problem is that the copy of the service
manual that I have has low quality images, and I cannot locate with confidence
the position of the "test point" on the board... it seems to be one end of
C821, but if someone can confirm that, I would feel more confident :-)
73, Michele IZ2EAS

[Non-text portions of this message have been removed]

18585. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 21:39:43 UTC
From: Garey Barrell
Topic: 18581 Message: 18585

See attached..

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

damico@... wrote:
>
>
>
> Hello Dieter,
>
> since there is a short piece of gray coax, I assume it is version 2....
>
> Thanks,
>
>
> Michele
>
>
>
>
>
>

18586. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-10 22:18:32 UTC
From: Garey Barrell
Topic: 18581 Message: 18586

Carl -

Do you happen to have a v.1 NB out of a radio??

I sent the attached to Michele, but I'm not convinced he has a v.2.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
> Hi Michele,
> This may help a bit. See attached copied from _www.WB4HFN.com_
> (http://www.WB4HFN.com)
> Carl wd8nhk
>
>
> damico@... writes:
>
>
> Hello Group,
> I am in the process of aligning the Noise Blanker of my TR7; I have the
> extenders and all the tools. The problem is that the copy of the service
> manual that I have has low quality images, and I cannot locate with confidence
> the position of the "test point" on the board... it seems to be one end of
> C821, but if someone can confirm that, I would feel more confident :-)
> 73, Michele IZ2EAS
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
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[Non-text portions of this message have been removed]

18587. Coax switch needed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-11 01:10:54 UTC
From: Bob Jackson
Topic: 18587 Message: 18587

If anyone has a "surplus to needs" 1x4 coax switch (PL-259) for a cheeep price, I'd like to hear from them.
Bob AG5X
Whitehouse, TX

18588. FS RV-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-11 04:18:30 UTC
From: Saad Mahaini
Topic: 606 Message: 18588

Hello,

I have a RV-4 that i like to sell. $150 shipped

73 Saad N5FF

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2247 / Virus Database: 3697/6582 - Release Date: 02/10/14

18589. FS TR-6 Package

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-11 04:28:53 UTC
From: Saad Mahaini
Topic: 606 Message: 18589

Hello,

I have a TR-6 with AC-4 and MS-4 that i like to sell. $1K shipped

73 Saad N5FF

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2247 / Virus Database: 3697/6582 - Release Date: 02/10/14

18590. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-11 08:07:45 UTC
From: <damico@...>
Topic: 18581 Message: 18590

Hello Garey,
you are - as usual - a very precious resource. Yes, my NB is exactly the one shown in the picture you sent me, i.e. version 2. The indicated point look actually like a test point :-) I should have thought about it, but I was not sure.... I will align the device this evening, when I am back from work.
73,

Michele

18591. 12JB6 or 12JB6A tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-12 12:40:00 UTC
From: John King
Topic: 18591 Message: 18591

Today at 6:34 AM
Anyone having any NOS 12JB6 or 12JB6A tubes gathering dust? Please email me if you want to dispose of them. My beautiful "old" TR3 is crying for them. There are sources for NOS transmitting tubes, but one never knows what they will get when he orders. What have you? Thanks and 73, John, K5PGW

18593. Re: [DrakeRadio] TR7 NB test point ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-12 14:08:58 UTC
From: <damico@...>
Topic: 18581 Message: 18593

Ok, I did it ! :-)
With the proper tools for the job, the Noise Blanker was aligned in a very short time...
now it is rasor sharp !
Thanks again, this is a great group !
73,
Michele IZ2EAS

18594. Re: [DrakeRadio] 12JB6 or 12JB6A tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-12 23:13:05 UTC
From: Byron Tatum
Topic: 18591 Message: 18594

John-
  Contact this friend of mine, I see him at all of the Ham Sales in our area and he sells good tested tubes. I know you have saw him at Belton, he is always in the back corner with tubes in large plastic storage bins spread out over about 6 tables: je2@...
    Good luck, Byron WA5THJ

From: John King <k5pgw@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 12, 2014 6:40 AM
Subject: [DrakeRadio] 12JB6 or 12JB6A tubes

18595. Re: [DrakeRadio] 12JB6 or 12JB6A tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-12 23:41:24 UTC
From: John King
Topic: 18591 Message: 18595

Thanks Byron, I will contact him. 73, John, K5PGW

On Wednesday, February 12, 2014 5:13 PM, Byron Tatum <bjtatum1@...> wrote:

John-
  Contact this friend of mine, I see him at all of the Ham Sales in our area and he sells good tested tubes. I know you have saw him at Belton, he is always in the back corner with tubes in large plastic storage bins spread out over about 6 tables: je2@...
    Good luck, Byron WA5THJ

From: John King <k5pgw@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 12, 2014 6:40 AM
Subject: [DrakeRadio] 12JB6 or 12JB6A tubes

Today at 6:34 AM
Anyone having any NOS 12JB6 or 12JB6A tubes gathering dust? Please email me if you want to dispose of them. My beautiful "old" TR3 is crying for them. There are sources for NOS transmitting tubes, but one never knows what they will get when he orders. What have you? Thanks and 73, John, K5PGW

18596. WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 13:45:56 UTC
From: Bob Jackson
Topic: 18596 Message: 18596

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!
Tnx and 73,
Bob AG5X
Whitehouse, TX

18597. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 15:58:01 UTC
From: N9JCQ@...
Topic: 18596 Message: 18597

Bob, there is a guy here locally in the Chicago suburbs who has an SW4 and an Sw4A for sale on Craigslist. They both look nice. You might try him.
Joe, N9JCQ

-----Original Message-----
From: Bob Jackson <bob145@suddenlink.net>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!
Tnx and 73,
Bob AG5X
Whitehouse, TX

18598. R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 16:25:12 UTC
From: Steve Wedge
Topic: 18598 Message: 18598

Just how effective is the pre-C-Line noise blanker supposed to be?

My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my NB is completely useless against. Signal level is about S3.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18599. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 16:39:14 UTC
From: Doug
Topic: 18598 Message: 18599

Must be something in the air, all bands started doing that here about an hour ago.

Sent from my iPhone

> On Feb 13, 2014, at 11:25, "Steve Wedge" <w1es1982@...> wrote:
>
> Just how effective is the pre-C-Line noise blanker supposed to be?
>
> My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my NB is completely useless against. Signal level is about S3.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18600. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 16:48:37 UTC
From: Dan Galligan
Topic: 18598 Message: 18600

Steve,
I get a similar noise, that I cannot eliminate, whenever my iPhone or iPad is plugged into the charger, near the radio equipment. Mine is more of a whining sound. Get it on the R4B, R4C, 75S3C, and on my Kenwood. Oddly enough, the Hammarlund HQ 150, nor the A-Line (A1 & A4) receivers, get the noise.
Not sure what yours sounds like, or what may be causing it, but once I figured out the source, I simply put my iOS devices in another room to charge, when I want to get on the air.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Feb 13, 2014, at 10:25, Steve Wedge <w1es1982@...> wrote:
>
>
>
> Just how effective is the pre-C-Line noise blanker supposed to be?
>
> My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my NB is completely useless against. Signal level is about S3.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
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> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>

18601. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 17:03:49 UTC
From: Richard Knoppow
Topic: 18598 Message: 18601

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, February 13, 2014 8:25 AM
Subject: [DrakeRadio] R-4B NB

Just how effective is the pre-C-Line noise blanker supposed
to be?

My R-4B is on 10 right now and there's what I would describe
as some sort of motor- or arcing-generated noise that my NB
is completely useless against. Signal level is about S3.

73,

Steve Wedge, W1ES/4

I have also been curious about this. The NB in my R4B
never seems to do much. I tested it in a couple of ways, by
means of the method suggested by Garey and also by setting
up a spark generator using a bug and choke, also by means of
a Tektronix pulse generator. With strong pulses from the bug
and choke or pulse generator I can hear and see on the
S-meter that it has some effect but on normal line noise it
seems to make no difference. I suspect that on ignition
noise it would probably work quite well but with modern cars
I never hear ignition noise. I've checked all the tuning
and circuits and can't find anything wrong with the NB, I
think its working the way its supposed to. Using the pulse
generator to mimic ignition noise it does make some
otherwise unreadable weak signals clearer. I understand
other versions of this type of noise blanker are no more
effective. However, the NB in my Kenwood TS-520S and in an
all solid state Kenwood (can't remember the model number) in
the ham club shack at work _will_ reduce line noise
considerably and prevent it from desensitizing the receiver.
FWIW, none of the conventional noise limiters on any
boatanchor I have works at all on CW. The adjustable one on
my AR-88 does limit but doesn't really do anything useful.
In the others the "carrier" from the BFO makes them useless.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18602. TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 17:43:45 UTC
From: <f6dfz@...>
Topic: 18602 Message: 18602

Hi to the group,

This afternoon, I measured the sensitivity of my TR7A.
Rig is unmodified as long as receiver is concerned. 300 Hz CW filter in line.
80 m : MDS = -134 dBm
10 m : MDS = -136 dBm.
When I read that the TR7 is deaf and needs a RF preamplifier, it's very funny.

Georges

18603. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 17:56:48 UTC
From: Bob Jackson
Topic: 18596 Message: 18603

I can't get anything to come up. Can you send me the link?

Bob
----- Original Message -----
From: N9JCQ@...
To: DrakeRadio@...m ; drake@...
Sent: Thursday, February 13, 2014 9:58 AM
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

Bob, there is a guy here locally in the Chicago suburbs who has an SW4 and an Sw4A for sale on Craigslist. They both look nice. You might try him.
Joe, N9JCQ

-----Original Message-----
From: Bob Jackson <bob145@...>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!
Tnx and 73,
Bob AG5X
Whitehouse, TX

18604. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 18:36:46 UTC
From: Garey Barrell
Topic: 18598 Message: 18604

Steve -

The noise blanker circuit topology is the same from the R-4 through the TR-7.

It was initially designed to remove ignition noise from the TR-4, which was designed for mobile SSB..... At the time,
cars produced a pretty steady stream of pulses that were very narrow and very high. The blanker essentially 'punched a
hole' in the signal path, turning off the receiver for the duration of the pulse. It did that very well. The waveform
on the front cover of the R-4B shows the process graphically.....

Resistive ignition cables came into general use, primarily thanks to all the other electronics in cars, and a new
scourge appeared. The Russian 'Woodpecker' over the horizon radar had a similar characteristic, except the pulses were
slower, and a bit wider. Time constants were adjusted in the C-Line blanker to allow it to deal with those a little
better. The catch is that the wider pulses required bigger holes, and there is a point of diminishing returns where you
have more 'hole' than 'signal', and yes the noise is gone but there isn't enough signal left to be intelligible.

Narrow pulses, whether generated by auto ignition systems, an antenna lead dragged across the chassis, or some sort of
pulse generation system, can drive the S-Meter to 10 over 9+ and obliterate fairly good signals. Turning on the blanker
will drop the S-Meter down to the signal level and make it perfectly readable. Obviously the object is to prevent the
noise pulse from reaching the AVC amplifier, shutting the receiver down for the release time of the AVC.

Bottom line, all the noise blankers do a good job of taking out ignition noise, electric fence noise, distant lightning
and any other noise consisting of short duration spikes. The wider the spike, the poorer the reduction. Buzzing,
whining, grumbling and other assorted 'noises' are NOT blankable as the 'average' level is too high, i.e., the radio
isn't ON long enough for the signal to be intelligible.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> Just how effective is the pre-C-Line noise blanker supposed to be?
> My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my
> NB is completely useless against. Signal level is about S3.
> 73,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>

18605. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 18:42:08 UTC
From: N9JCQ@...
Topic: 18596 Message: 18605

http://chicago.craigslist.org/nch/ele/4312942592.html

CL >chicago >north chicagoland >all for sale / wanted >electronics - by owner

x prohibited[?]

Posted: 13 days ago

Vintage Drake Shortwave radios - $350 (North Shore, IL)

© craigslist - Map data © OpenStreetMap

Vintage Drake Shortwave radios
I have two (2)

SPR-4
Shortwave Broadcast Band Communications Receiver Rating (1-5): HHH (3)
Made In: United States 1969-1978 Voltages: 120/240 VAC 12 VDC
Coverage: See Comments. Readout: Analog Linear
Modes: AM/LSB/USB/CW Selectivity: 4.8/2.4/.4 kHz
Circuit: Double Conversion Physical: 10.75 x 5.5 x 12.25" 14 Lbs.
Features: ¼" Head. Jack, S-Meter, IF Notch, Preselector, RF Gain, Mute, Dial Lamp, Dial Lamp Switch, Spinner Knob, Audio In-Out Jack, Anti-Vox Jack.
Accessories: AL-4 LW/MW Loop, MS-4 Spkr, 5NB NB, SCC-4 Cal, FS-4 Synthz.

Comments: Ranges: .15-.5, .5-1, 1-1.5, 6-6.5, 7-7.5, 9.5-10, 11.5-12, 15-15.5, 17.5-18 and 21.5-22 MHz plus 14 additional 500 kHz crystal positions. Dial accuracy is ±1 kHz. Drake's first completely solid-state receiver.
Click here to view color photo and more info. or click here to view sold archive at Universal Radio.

$350 each

Location: North Shore, IL

-----Original Message-----
From: Bob Jackson <bob145@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 11:51 am
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

☐
I can't get anything to come up. Can you send me the link?

Bob

----- Original Message -----

From: N9JCQ@...

To: DrakeRadio@yahoogroups.com ; drake@...h.net

Sent: Thursday, February 13, 2014 9:58 AM

Subject: Re: [DrakeRadio] WTB: Drake SW-4A

Bob, there is a guy here locally in the Chicago suburbs who has an SW4 and an Sw4A for sale on Craigslist. They both look nice. You might try him.
Joe, N9JCQ

-----Original Message-----
From: Bob Jackson <bob145@...>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!

Tnx and 73,
Bob AG5X
Whitehouse, TX

18606. R4 Front Panel Removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:23:09 UTC
From: Fernando
Topic: 18606 Message: 18606

Hello.

How is the Passband Seletor Lever removed?

Does the whole shaft comes out the front

or is the lever pressed fit onto that shaft?

I’m trying to remove the front panel of this R4.

Thanks for any tips.

Fernando N2FQ/6
n2fq@...

18607. Re: [DrakeRadio] R4 Front Panel Removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:30:57 UTC
From: Garey Barrell
Topic: 18606 Message: 18607

The entire shaft come out. It 'breaks' at the copper tube just in front of the Passband Tuner. Be careful to not
stress the PB Tuner switch wafer.

I put a hand on either side of the copper tube, and press my thumbs together for controlled pressure with no surprises.

There is a flat piece of spring steel inside the copper tube that may fall out when you remove it. Don't LOSE it!! It
provides the 'flat' for the shaft inside the tube.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Fernando wrote:
>
>
> Hello.
>
> How is the Passband Seletor Lever removed?
>
> Does the whole shaft comes out the front
>
> or is the lever pressed fit onto that shaft?
>
>
> I?m trying to remove the front panel of this R4.
>
>
> Thanks for any tips.
>
> Fernando N2FQ/6
> n2fq@... <mailto:n2fq@...>
>

18608. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:32:11 UTC
From: Steve Wedge
Topic: 18598 Message: 18608

That's pretty much as I reckoned, Garey. I guess what I'll take away is that the noise spike have to be fairly high-amplitude before the NB will take them out. Yes, I knew about the covers on the manuals. I'm also old enough to remember many cars around still with non-resistive ignition wires. Especially the motorheads who ran solid copper cables. I can see lots of use for the NB's in the TR-3/TR-4, but not so much with the Twins.

Yeah, I turned on one of my R-4's and A/B'ed it with the R-4B and the NB was doing about the same, which is to say nothing on the noise that was present at the time.

It's interesting to note how much the NB's for the C-Line and TR-4's go for, given that their usefulness isn't quite that high nowadays. It's more a collector value sort of thing.

Oh, well. Back to my painting...

73 & TNX -
Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, February 13, 2014 1:36 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4B NB

Steve -

The noise blanker circuit topology is the same from the R-4 through the TR-7.

It was initially designed to remove ignition noise from the TR-4, which was designed for mobile SSB..... At the time,
cars produced a pretty steady stream of pulses that were very narrow and very high. The blanker essentially 'punched a
hole' in the signal path, turning off the receiver for the duration of the pulse. It did that very well. The waveform
on the front cover of the R-4B shows the process graphically.....

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scourge appeared. The Russian 'Woodpecker' over the horizon radar had a similar characteristic, except the pulses were
slower, and a bit wider. Time constants were adjusted in the C-Line blanker to allow it to deal with those a little
better. The catch is that the wider pulses required bigger holes, and there is a point of diminishing returns where you
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73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> Just how effective is the pre-C-Line noise blanker supposed to be?
> My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my
> NB is completely useless against. Signal level is about S3.
> 73,
> Steve Wedge, W1ES/4
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> All my computers have my signature with various pearls of wisdom appended thereto.
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>
>

18609. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:33:46 UTC
From: Steve Wedge
Topic: 18596 Message: 18609

That's an SPR-4. If that thing's working, $350 is a really good price for it. Especially if it has additional crystals, the calibrator and/or NB.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: N9JCQ@...
Sent: Thursday, February 13, 2014 1:42 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

http://chicago.craigslist.org/nch/ele/4312942592.html

CL >chicago >north chicagoland >all for sale / wanted >electronics - by owner x prohibited[?]
Posted: 13 days ago
Vintage Drake Shortwave radios - $350 (North Shore, IL)

© craigslist - Map data © OpenStreetMap
Vintage Drake Shortwave radios
I have two (2)

SPR-4
Shortwave Broadcast Band Communications Receiver Rating (1-5): HHH (3)
Made In: United States 1969-1978 Voltages: 120/240 VAC 12 VDC
Coverage: See Comments. Readout: Analog Linear
Modes: AM/LSB/USB/CW Selectivity: 4.8/2.4/.4 kHz
Circuit: Double Conversion Physical: 10.75 x 5.5 x 12.25" 14 Lbs.
Features: ¼" Head. Jack, S-Meter, IF Notch, Preselector, RF Gain, Mute, Dial Lamp, Dial Lamp Switch, Spinner Knob, Audio In-Out Jack, Anti-Vox Jack.
Accessories: AL-4 LW/MW Loop, MS-4 Spkr, 5NB NB, SCC-4 Cal, FS-4 Synthz.

Comments: Ranges: .15-.5, .5-1, 1-1.5, 6-6.5, 7-7.5, 9.5-10, 11.5-12, 15-15.5, 17.5-18 and 21.5-22 MHz plus 14 additional 500 kHz crystal positions. Dial accuracy is ±1 kHz. Drake's first completely solid-state receiver.
Click here to view color photo and more info. or click here to view sold archive at Universal Radio.

$350 each

a.. Location: North Shore, IL

-----Original Message-----
From: Bob Jackson <bob145@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>

Sent: Thu, Feb 13, 2014 11:51 am
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

☐
I can't get anything to come up. Can you send me the link?

Bob
----- Original Message -----
From: N9JCQ@...
To: DrakeRadio@yahoogroups.com ; drake@...
Sent: Thursday, February 13, 2014 9:58 AM
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

Bob, there is a guy here locally in the Chicago suburbs who has an SW4 and an Sw4A for sale on Craigslist. They both look nice. You might try him.
Joe, N9JCQ

-----Original Message-----
From: Bob Jackson <bob145@suddenlink.net>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!
Tnx and 73,
Bob AG5X
Whitehouse, TX

18610. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:39:40 UTC
From: Bob Jackson
Topic: 18596 Message: 18610

Thanks!!
----- Original Message -----
From: N9JCQ@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, February 13, 2014 12:42 PM
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

http://chicago.craigslist.org/nch/ele/4312942592.html

CL >chicago >north chicagoland >all for sale / wanted >electronics - by owner x prohibited[?]
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Vintage Drake Shortwave radios - $350 (North Shore, IL)

© craigslist - Map data © OpenStreetMap
Vintage Drake Shortwave radios
I have two (2)

SPR-4
Shortwave Broadcast Band Communications Receiver Rating (1-5): HHH (3)
Made In: United States 1969-1978 Voltages: 120/240 VAC 12 VDC
Coverage: See Comments. Readout: Analog Linear
Modes: AM/LSB/USB/CW Selectivity: 4.8/2.4/.4 kHz
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Features: ¼" Head. Jack, S-Meter, IF Notch, Preselector, RF Gain, Mute, Dial Lamp, Dial Lamp Switch, Spinner Knob, Audio In-Out Jack, Anti-Vox Jack.
Accessories: AL-4 LW/MW Loop, MS-4 Spkr, 5NB NB, SCC-4 Cal, FS-4 Synthz.

Comments: Ranges: .15-.5, .5-1, 1-1.5, 6-6.5, 7-7.5, 9.5-10, 11.5-12, 15-15.5, 17.5-18 and 21.5-22 MHz plus 14 additional 500 kHz crystal positions. Dial accuracy is ±1 kHz. Drake's first completely solid-state receiver.
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$350 each

a.. Location: North Shore, IL

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To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 11:51 am
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

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Bob
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To: DrakeRadio@yahoogroups.com ; drake@...
Sent: Thursday, February 13, 2014 9:58 AM
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

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Joe, N9JCQ

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From: Bob Jackson <bob145@...>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!
Tnx and 73,
Bob AG5X
Whitehouse, TX

18611. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:39:50 UTC
From: Doug
Topic: 18598 Message: 18611

Steve,

Those of us that live in the country around electric fences enjoy the noise blankers!

I paid a ridiculous amount for the NB for my TR-4Cw. It's amazing when you look at EPAY, a lot of guys remove them from every rig possible and sell them separately.

Sent from my iPhone

> On Feb 13, 2014, at 14:32, "Steve Wedge" <w1es1982@...> wrote:
>
> That's pretty much as I reckoned, Garey. I guess what I'll take away is that the noise spike have to be fairly high-amplitude before the NB will take them out. Yes, I knew about the covers on the manuals. I'm also old enough to remember many cars around still with non-resistive ignition wires. Especially the motorheads who ran solid copper cables. I can see lots of use for the NB's in the TR-3/TR-4, but not so much with the Twins.
>
> Yeah, I turned on one of my R-4's and A/B'ed it with the R-4B and the NB was doing about the same, which is to say nothing on the noise that was present at the time.
>
> It's interesting to note how much the NB's for the C-Line and TR-4's go for, given that their usefulness isn't quite that high nowadays. It's more a collector value sort of thing.
>
> Oh, well. Back to my painting...
>
> 73 & TNX -
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: Garey Barrell
> Sent: Thursday, February 13, 2014 1:36 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] R-4B NB
>
>
> Steve -
>
> The noise blanker circuit topology is the same from the R-4 through the TR-7.
>
> It was initially designed to remove ignition noise from the TR-4, which was designed for mobile SSB..... At the time,
> cars produced a pretty steady stream of pulses that were very narrow and very high. The

blanker essentially 'punched a
> hole' in the signal path, turning off the receiver for the duration of the pulse. It did that very well. The waveform
> on the front cover of the R-4B shows the process graphically.....
>
> Resistive ignition cables came into general use, primarily thanks to all the other electronics in cars, and a new
> scourge appeared. The Russian 'Woodpecker' over the horizon radar had a similar characteristic, except the pulses were
> slower, and a bit wider. Time constants were adjusted in the C-Line blanker to allow it to deal with those a little
> better. The catch is that the wider pulses required bigger holes, and there is a point of diminishing returns where you
> have more 'hole' than 'signal', and yes the noise is gone but there isn't enough signal left to be intelligible.
>
> Narrow pulses, whether generated by auto ignition systems, an antenna lead dragged across the chassis, or some sort of
> pulse generation system, can drive the S-Meter to 10 over 9+ and obliterate fairly good signals. Turning on the blanker
> will drop the S-Meter down to the signal level and make it perfectly readable. Obviously the object is to prevent the
> noise pulse from reaching the AVC amplifier, shutting the receiver down for the release time of the AVC.
>
> Bottom line, all the noise blankers do a good job of taking out ignition noise, electric fence noise, distant lightning
> and any other noise consisting of short duration spikes. The wider the spike, the poorer the reduction. Buzzing,
> whining, grumbling and other assorted 'noises' are NOT blankable as the 'average' level is too high, i.e., the radio
> isn't ON long enough for the signal to be intelligible.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve Wedge wrote:
> >
> >
> > Just how effective is the pre-C-Line noise blanker supposed to be?
> > My R-4B is on 10 right now and there's what I would describe as some sort of motor- or arcing-generated noise that my
> > NB is completely useless against. Signal level is about S3.
> > 73,
> > Steve Wedge, W1ES/4
> > Time flies like an arrow; fruit flies like a banana.
> >

> > All my computers have my signature with various pearls of wisdom appended thereto.
> >
> >
> >
>
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18612. Re: [DrakeRadio] R-4B NB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 19:54:46 UTC
From: Garey Barrell
Topic: 18598 Message: 18612

Doug -

Oh yes, I meant to mention that before. Electric fence noise can be a real pain, and the NB does a great job on them.

There's actually still quite a bit of noise generation that IS affected by the blankers. It just has to have a low
AVERAGE power portrait.

They're still valuable because they can be the difference between a QSO or not.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug wrote:
>
>
> Steve,
>
> Those of us that live in the country around electric fences enjoy the noise blankers!
>
> I paid a ridiculous amount for the NB for my TR-4Cw. It's amazing when you look at EPAY, a lot of guys remove them
> from every rig possible and sell them separately.
>
> Sent from my iPhone
>
> On Feb 13, 2014, at 14:32, "Steve Wedge" <w1es1982@... <mailto:w1es1982@...>> wrote:
>
>>

18613. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 20:04:36 UTC
From: Lee Hiers
Topic: 18596 Message: 18613

Actually, it looks like he's selling an SPR-4 as well as an SW-4A....for
350 each.

On Thu, Feb 13, 2014 at 2:33 PM, Steve Wedge <w1es1982@...> wrote:
>
>

> That's an SPR-4. If that thing's working, $350 is a really good price for
> it. Especially if it has additional crystals, the calibrator and/or NB.
>

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18614. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 20:09:22 UTC
From: N9JCQ@...
Topic: 18596 Message: 18614

I had exchanged emails with him a few weeks ago as he had originally posted them as "Swans." I corrected him and told him to post them here and a few other sites but I guess he hadn't He is the son of a ham and holds hams in high regards. I wish I had the cash for one of them. Both nice radios.

-----Original Message-----
From: Lee Hiers <lee.hiers@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 2:04 pm
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

Actually, it looks like he's selling an SPR-4 as well as an SW-4A....for 350 each.

On Thu, Feb 13, 2014 at 2:33 PM, Steve Wedge <w1es1982@....com> wrote:

That's an SPR-4. If that thing's working, $350 is a really good price for it. Especially if it has additional crystals, the calibrator and/or NB.

73 de Lee

--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18615. Re: [DrakeRadio] WTB: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 20:10:33 UTC
From: N9JCQ@...
Topic: 18596 Message: 18615

He has an SPR4 and a SW4A.

-----Original Message-----
From: Steve Wedge <w1es1982@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 1:33 pm
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

That's an SPR-4. If that thing's working, $350 is a really good price for it. Especially if it has additional crystals, the calibrator and/or NB.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: N9JCQ@...
Sent: Thursday, February 13, 2014 1:42 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

http://chicago.craigslist.org/nch/ele/4312942592.html

CL >chicago >north chicagoland >all for sale / wanted >electronics - by owner x prohibited[?]
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Vintage Drake Shortwave radios
I have two (2)

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Shortwave Broadcast Band Communications Receiver Rating (1-5): HHH (3)
Made In: United States 1969-1978 Voltages: 120/240 VAC 12 VDC
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Accessories: AL-4 LW/MW Loop, MS-4 Spkr, 5NB NB, SCC-4 Cal, FS-4 Synthz.

Comments: Ranges: .15-.5, .5-1, 1-1.5, 6-6.5, 7-7.5, 9.5-10, 11.5-12, 15-15.5, 17.5-18 and 21.5-22 MHz plus 14 additional 500 kHz crystal positions. Dial accuracy is ±1 kHz. Drake's first completely solid-state receiver.
Click here to view color photo and more info. or click here to view sold archive at

Universal Radio.

$350 each

Location: North Shore, IL

-----Original Message-----
From: Bob Jackson <bob145@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 11:51 am
Subject: Re: [DrakeRadio] WTB: Drake SW-4A

☐
I can't get anything to come up. Can you send me the link?

Bob

----- Original Message -----

From: N9JCQ@...

To: DrakeRadio@yahoogroups.com ; drake@mailman.qth.net

Sent: Thursday, February 13, 2014 9:58 AM

Subject: Re: [DrakeRadio] WTB: Drake SW-4A

Bob, there is a guy here locally in the Chicago suburbs who has an SW4 and an Sw4A for sale on Craigslist. They both look nice. You might try him.
Joe, N9JCQ

-----Original Message-----
From: Bob Jackson <bob145@...>
To: Drake-1 <drake@...>; Drake-2 <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 13, 2014 7:40 am
Subject: [DrakeRadio] WTB: Drake SW-4A

I'm looking to buy a really nice SW-4A receiver ASAP. Must be in at least VG+ cosmetic condition and, of course, fully operational. Any help very much appreciated. Time is of the essence!

Tnx and 73,
Bob AG5X
Whitehouse, TX

18616. Re: [DrakeRadio] R4 Front Panel Removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 20:34:21 UTC
From: Fernando
Topic: 18606 Message: 18616

Thanks Gary that’s the ticket.

Came back from lunch, read your note, went

back out to the garage and bingo.

My fingers are not as strong so, with

the aid of pliers (ever so gently) on that

shaft (in front of the tube), pried with the

edge of a screwdriver against the tube and

off it came.

Thanks for the quick and accurate tip.

Fernando N2FQ/6
n2fq@...

On Feb 13, 2014, at 11:30 AM, Garey Barrell <k4oah@...> wrote:

> The entire shaft come out. It 'breaks' at the copper tube just in front of the Passband Tuner. Be careful to not
> stress the PB Tuner switch wafer.
>
> I put a hand on either side of the copper tube, and press my thumbs together for controlled pressure with no surprises.
>
> There is a flat piece of spring steel inside the copper tube that may fall out when you remove it. Don't LOSE it!! It
> provides the 'flat' for the shaft inside the tube.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Fernando wrote:
>>
>>
>> Hello.
>>
>> How is the Passband Seletor Lever removed?
>>

>> Does the whole shaft comes out the front
>>
>> or is the lever pressed fit onto that shaft?
>>
>>
>> I’m trying to remove the front panel of this R4.
>>
>>
>> Thanks for any tips.
>>
>> Fernando N2FQ/6
>> n2fq@... <mailto:n2fq@...>
>>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

18617. Re: [DrakeRadio] TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-13 20:48:35 UTC
From: martuccif@...
Topic: 18602 Message: 18617

i agree ......

francesco
i8fym

Da: DrakeRadio@yahoogroups.com
A: DrakeRadio@yahoogroups.com
Cc:
Data: 13 Feb 2014 09:43:45 -0800
Oggetto: [DrakeRadio] TR7A sensitivity

<!--
-->

>

>

>

>

> Hi to the group,

> This afternoon, I measured the sensitivity of my TR7A.
> Rig is unmodified as long as receiver is concerned. 300 Hz CW filter in line.
> 80 m : MDS = -134 dBm
> 10 m : MDS = -136 dBm.
> When I read that the TR7 is deaf and needs a RF preamplifier, it's very funny.

> Georges

>

18618. Re: [DrakeRadio] TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 01:22:50 UTC
From: Jim Shorney
Topic: 18602 Message: 18618

This I have said. However, I have also noted that in the R-7 the preamp can sometimes make very weak signals easier to copy. But it does not improve sensitivity.

73

-Jim
NU0C

On 13 Feb 2014 09:43:45 -0800, f6dfz@... wrote:

>Hi to the group,
>
> This afternoon, I measured the sensitivity of my TR7A.
> Rig is unmodified as long as receiver is concerned. 300 Hz CW filter in line.
> 80 m : MDS = -134 dBm
> 10 m : MDS = -136 dBm.
> When I read that the TR7 is deaf and needs a RF preamplifier, it's very funny.
>
>
>
>
> Georges

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18619. R4A Power Transformer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 03:38:41 UTC
From: <w5rkl@...>
Topic: 18619 Message: 18619

I'm in need of a good R4A power transformer. If you have one you are willing to sell, let me know off group. Email is my call at yahoo dot com.

Thanks and 73
Mike W5RKL

18620. RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 07:50:50 UTC
From: <f6dfz@...>
Topic: 18602 Message: 18620

Hi Jim,

I also had a R7 in the past. Terrific couple for its time, with true double reception.
I prefered the audio of the TR7, but difficult to really tell if it's a generality.
I rarely used the preamplifier, it brought too much noise for my taste.
I make a remark similar to yours about the 300 Hz CW filter. When you switch it in, the receiver seems deaf. But the signal to noise ratio is of course better than those of the 500 Hz filter ; you just have to augment the AF gain to compensate for the slight loss of audio.

Georges

18621. RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 12:01:42 UTC
From: <k4mt@...>
Topic: 18602 Message: 18621

My TR-7 not A is hotter than my Icom IC-7200. It measures every bit of -130 or better on all bands. Amazing for its vintage.

Gary K4MT

18622. For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 08:59:17 UTC
From: <w7boz@...>
Topic: 18622 Message: 18622

Need to sell my Drake HF Station. In great condition. I have no Ham Shack anymore. Tested the other day at a friends house and everything seems to still work. The pots are dirty and need cleaned. Probably needs a good dusting inside as well. The caps in the power supply are nice and no signs of leaking. Feel free to ask me any questions and I do have many pictures. I will take the highest offer that I receive. It will be sold as is, only due to age. Shipping will be from 84321.

Kevin
W7BOZ

18623. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 14:01:56 UTC
From: Garey Barrell
Topic: 18622 Message: 18623

Kevin -

We much prefer that you state a price when you put something up for sale on the list. It's not a _rule_ as sometimes
you have items that are difficult to price. But what you are offering is pretty easy to estimate value. Someone could
always offer less, or more, if they wish.

We are NOT an auction site, so please include a price on any offers for sale.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w7boz@... wrote:
>
>
> Need to sell my Drake HF Station. In great condition. I have no Ham Shack anymore. Tested the other day at a friends
> house and everything seems to still work. The pots are dirty and need cleaned. Probably needs a good dusting inside as
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> many pictures. I will take the highest offer that I receive. It will be sold as is, only due to age. Shipping will be
> from 84321.
>
> Kevin
> W7BOZ
>

18624. RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 18:20:19 UTC
From: <f6dfz@...>
Topic: 18602 Message: 18624

This is not the end of TR7 qualities. For example, check Image Rejection ; the TR7/TR7A is well over 100 dB when "high end" rigs like TS990, FT5K, FT3K are near 65 dB.
Check also IF rejection, IMD2...
The TR7A has general coverage, when down conversion design have a gap near the IF.
Try to service these new rigs or even to fully understand their schematic diagrams. Did you see any microprocessor inside your TR7 ?
The TR7 and similar up conversion rigs were the answer to the problems due to down conversion designs.
It's a pity to see them back. Good gain distribution is the answer to very high closed spaced signals IMD3 (see the Hilberling up conversion design and its 50 kHz wide roofing filter).
Down conversion designs with narrow roofing filters are a poor answer and reintroduce problems solved 35 years ago by Drake and others.
If the ranking in Rob Sherwood's comparison table was based on an other criterion than 2 kHz IMD3, all rigs would be up conversion, or now direct sampling, but certainly not down conversion.

Georges

18625. FS: 2 x SPR-4's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-14 19:21:25 UTC
From: VE3AX/7
Topic: 18625 Message: 18625

I have two SPR-4’s available for new owners as follows;

Both have standard xtal sets and no options. They are mid-run units with glass epoxy PC boards and the option to change the fixed AGC time constants.

#2722
Replaced bad B-5030 transistor in the AC power supply.
Replaced the front panel with a very good one from #2737. In the right light you can see where someone had a sticky label applied near the meter so it has faded differently from the rest of the panel.
New blue/white dial & meter filters from WA9TGT.
Repaired broken PTO shaft.
Cleaned all PTO gears & dials and cleaned/re-lubed bearings. Dial is not quite as smooth as #2737 below.
New chassis rubber bumper from KC9IEQ.
New rubber bumpers on feet.
Re-painted white lines on knobs.
Installed new foam strips between front panel and sub-panel.
Touched up paint chips on edges of cabinet. Cabinet has some slight surface scratches.
Installed a permanent AC line cord – no extra holes drilled and is entirely reversible – original connector & hardware will be shipped with radio.

Asking $325 + shipping.

#2737
Replaced two bad B-5030 transistors on the audio board.
Replaced the front panel with KF8MW replacement (C-line style with no brushed aluminum edge).
New blue/white dial & meter filters from WA9TGT.
Replaced bad tantalum cap in PTO.
Cleaned all PTO gears & dials and cleaned/re-lubed bearings.
New chassis rubber bumper from KC9IEQ.
New rubber bumpers on feet.
Installed new dial window from WA9TGT.
Machined and installed/lubed a new Preselector shaft as the vernier was originally stuck solid, then when freed up, it had insufficient friction to drive it due to the worn shaft. Nice, smooth, positive operation now.
Re-painted white lines on knobs.
Installed new foam strips between front panel and sub-panel.
Installed a permanent AC line cord – no extra holes drilled and is entirely reversible – original connector & hardware will be shipped with radio.

Cabinet on this one has a faded top and is awaiting an overspray with Krylon. Otherwise in good shape. Does have a very few light scratches.

Asking $375 + shipping.

Please reply off list to ve3ax@.... Pics available.

73 and thanks

Peter
VE3AX/7

18626. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 03:18:05 UTC
From: Jim Shorney
Topic: 18602 Message: 18626

I also preferred the TR-7 audio at first. Even so, after I learned that K9JU had found that there is a fair amount of IMD in the audio stage, so I had done some audiophile-style component changes to try to improve performance. Results were good, so I took it a step farther with the R-7 and extended the frequency response as well. Now I prefer the R-7 audio, and I need to go back and work on the TR-7 again! Signals seem to "stand out" better and are more intelligible.

Working split with that pair is lots of fun! It helped me to bust a 30 KHz wide RTTY pileup and snag FT5ZM earlier this month.

73

-Jim
NU0C

On 13 Feb 2014 23:50:50 -0800, f6dfz@... wrote:

>Hi Jim,
>
> I also had a R7 in the past. Terrific couple for its time, with true double reception.
> I prefered the audio of the TR7, but difficult to really tell if it's a generality.
> I rarely used the preamplifier, it brought too much noise for my taste.
> I make a remark similar to yours about the 300 Hz CW filter. When you switch it in, the receiver seems deaf. But the signal to noise ratio is of course better than those of the 500 Hz filter ; you just have to augment the AF gain to compensate for the slight loss of audio.
>
>
> Georges

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18627. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 06:53:38 UTC
From: <f6dfz@...>
Topic: 18602 Message: 18627

Hi Jim, thanks for your comments. I saw some information on the PA0TRT and DL7MAJ websites. What mods do you recommend ?
I hate to tinker inside my rigs only to try and see. Your recommendations on the important mods will be very much appreciated.

Georges

18628. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 14:20:36 UTC
From: <w7boz@...>
Topic: 18622 Message: 18628

Garey,

I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.

Kevin
W7BOZ

18629. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 15:44:49 UTC
From: Jim Shorney
Topic: 18602 Message: 18629

Georges,

I will need to go back and organize my notes to provide exact info. Part of what I have done is based on the work of those two fine hams that you mention. Audiophile improvements that some will no doubt snicker at include replacing 2N3904 transistors with BC549B, metal film resistors in place of carbon, ceramic coupling capacitors in the audio path replaced with poly, and increasing the value of some decoupling capacitors. Frequency response extension involves changing the values of selected parts as described by the others. The theory there is not to produce a "hi-fi" radio per se, but to improve articulation and reduce distortions caused by phase shift at the edges of the audio passband. I have no measurements to prove definitively that this is so, but it sounds good on paper... :)

K9JU found the IMD to be quite objectionable to his ears, and went to greater lengths than I did. He has not published his work anywhere that I know of at this point.

73

-Jim
NU0C

On 14 Feb 2014 22:53:38 -0800, f6dfz@... wrote:

>Hi Jim, thanks for your comments. I saw some information on the PA0TRT and DL7MAJ websites.
> What mods do you recommend ?
> I hate to tinker inside my rigs only to try and see. Your recommendations on the important mods will be very much appreciated.
>
>
> Georges

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18630. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 16:11:56 UTC
From: Garey Barrell
Topic: 18622 Message: 18630

Kevin -

It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w7boz@... wrote:
>
>
> Garey,
>
> I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
> happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
>
> Kevin
> W7BOZ
>

18631. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:03:53 UTC
From: Richard Knoppow
Topic: 18602 Message: 18631

```
----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 15, 2014 7:44 AM
Subject: Re: [DrakeRadio] RE: TR7A sensitivity

>
> Georges,
>
> I will need to go back and organize my notes to provide
> exact info. Part of
> what I have done is based on the work of those two fine
> hams that you mention.
> Audiophile improvements that some will no doubt snicker at
> include replacing
> 2N3904 transistors with BC549B, metal film resistors in
> place of carbon,
> ceramic coupling capacitors in the audio path replaced
> with poly, and
> increasing the value of some decoupling capacitors.
> Frequency response
> extension involves changing the values of selected parts
> as described by the
> others. The theory there is not to produce a "hi-fi" radio
> per se, but to
> improve articulation and reduce distortions caused by
> phase shift at the edges
> of the audio passband. I have no measurements to prove
> definitively that this
> is so, but it sounds good on paper... :)
>
> K9JU found the IMD to be quite objectionable to his ears,
> and went to greater
> lengths than I did. He has not published his work anywhere
> that I know of at
> this point.
>
> 73
>
> -Jim
> NU0C

A couple of things from an old audio person: There is
probably no advantage in changing from ceramic to plastic
film caps. Very high K ceramics, Class-2, have some voltage
```

coefficient of capacitance but in most audio applications such as coupling capacitors there is a DC voltage on the cap which is quite a bit higher than the AC voltage so the effect of the capacitance variation is minimal. Capacitors do not cause harmonic distortion. The voltage variation could, in principal, cause intermodulation distortion if only AC is present.
Carbon composition resistor also have a voltage coefficient of resistance. Here again the amount depends on the ratio of DC to AC on the resistor. Either carbon or metal film resistors have virtually no voltage variation. It was found long ago that film resistors can make a detectably difference in feedback networks.
My experience is that clean audio in a communications receiver definitely does make a difference, even with CW, because the distortion, both IM and harmonic, exaggerates the effect of noise and QRM.
IM is best measured with a spectrum analyzer but can also be measured with a selective voltmeter. There were standardized methods of measuring IM using two frequencies but both of the methods commonly used in motion picture optical recording could miss problems so its a good idea to measure using several combinations of frequencies. The two general methods are: 1, to use two widely spaced frequencies, one near each end of the audio band limit and look for modulation of the high frequency by the low frequency, and, 2, to use two closely spaced frequencies of equal amplitude. The second method can be used on narrow bandwidth channels and is the desirable one for distortion measurements of SSB amplifiers. Harmonic distortion measurements are not suitable for narrow band systems since the frequency limitations will eliminate the harmonics.
IMO IMD is very audible. The two kinds of distortion come from slightly different mechanisms in the amplifier so one must measure both.
Another opinion: Simple and not very good audio amplifiers are very common in communications receivers, I think because the assumption was made that the quality didn't matter because of the limited bandwidth and limited dynamic range of the signal. This is, again IMO, a mistake. Of course, simple amplifiers are also cheap. "Good enough" often isn't.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18632. Re: [DrakeRadio] For Auction: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:27:09 UTC
From: john
Topic: 18622 Message: 18632

Maybe it's just me, but I've always thought it good form to pay attention
to a polite request from a list owner.

John K5MO

> > I leave the price up to who would really like to own this. I will
> consider any offer over $x. Does that make you
> > happy?

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18633. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:27:33 UTC
From: Garey Barrell
Topic: 18602 Message: 18633

Biting my tongue... :-) Ow!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> Georges,
>
> I will need to go back and organize my notes to provide exact info. Part of
> what I have done is based on the work of those two fine hams that you mention.
> Audiophile improvements that some will no doubt snicker at include replacing
> 2N3904 transistors with BC549B, metal film resistors in place of carbon,
> ceramic coupling capacitors in the audio path replaced with poly, and
> increasing the value of some decoupling capacitors. Frequency response
> extension involves changing the values of selected parts as described by the
> others. The theory there is not to produce a "hi-fi" radio per se, but to
> improve articulation and reduce distortions caused by phase shift at the edges
> of the audio passband. I have no measurements to prove definitively that this
> is so, but it sounds good on paper... :)
>
> K9JU found the IMD to be quite objectionable to his ears, and went to greater
> lengths than I did. He has not published his work anywhere that I know of at
> this point.
>
> 73
>
> -Jim
> NU0C
>
>
> On 14 Feb 2014 22:53:38 -0800, f6dfz@... wrote:
>
>> Hi Jim, thanks for your comments. I saw some information on the PA0TRT and DL7MAJ
websites.
>> What mods do you recommend ?
>> I hate to tinker inside my rigs only to try and see. Your recommendations on the
important mods will be very much appreciated.
>>
>>
>> Georges
>

18634. RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:51:35 UTC
From: <f6dfz@...>
Topic: 18602 Message: 18634

Thanks Jim, I shall wait for more info from you. Very few reviews publish IMD3 inside the base band audio channel.
It's, at least for me, a very important figure as it gives an idea of the fidelity, crispness, etc... of a receiver.

G

18635. Re: [DrakeRadio] For Auction: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:44:47 UTC
From: Jim Anderson
Topic: 18622 Message: 18635

Nope, it's not just you. I thought the same thing. I enjoy this group more than most because of its polite nature and appreciation for Garey's contributions to us all. My hope is that the seller receives exactly zero responses from the list.

73, Jim - KA9VHG

On 02/15/2014 11:27 AM, john wrote:
> Maybe it's just me, but I've always thought it good form to pay attention
> to a polite request from a list owner.
>
> John K5MO
>
>
>
>>> I leave the price up to who would really like to own this. I will
>> consider any offer over $x. Does that make you
>>> happy?
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is active.
> http://www.avast.com
>
>
>
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>
> Yahoo Groups Links
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>

18636. Re: [DrakeRadio] W!AW / 6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 17:56:10 UTC
From: Chgypsy@...
Topic: 18636 Message: 18636

Hi .
1748 z w1aw / 6 San Diago
28.507 sb ; third try TR7 no amp.
Found out the counter doesn't work though. Carl

18637. Re: [DrakeRadio] For Auction: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 18:27:17 UTC
From: <w7apm@...>
Topic: 18622 Message: 18637

The seller attitude to a polite request sounded to me like somebody I wouldn't want to deal with...

--- ka9vhg@gmail.com wrote:

From: Jim Anderson <ka9vhg@gmail.com>
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] For Auction: Drake TR-4C, MS-4, AC-4, MN-4
Date: Sat, 15 Feb 2014 11:44:47 -0600

Nope, it's not just you. I thought the same thing. I enjoy this group
more than most because of its polite nature and appreciation for Garey's
contributions to us all. My hope is that the seller receives exactly
zero responses from the list.

73, Jim - KA9VHG

On 02/15/2014 11:27 AM, john wrote:
> Maybe it's just me, but I've always thought it good form to pay attention
> to a polite request from a list owner.
>
> John K5MO
>
>
>
>>> I leave the price up to who would really like to own this. I will
>> consider any offer over $x. Does that make you
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>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
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>
> Yahoo Groups Links
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18638. Re: [DrakeRadio] For Auction: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 18:51:12 UTC
From: L L bahr
Topic: 18622 Message: 18638

If a guy wants to auction his equipment, he needs to take it to the E site. "I'll consider offers" I find insulting. That tells me they have no consideration of my time on this reflector.
Lee, w0vt

Nope, it's not just you. I thought the same thing. I enjoy this group more than most because of its polite nature and appreciation for Garey's contributions to us all. My hope is that the seller receives exactly zero responses from the list.

73, Jim - KA9VHG

On 02/15/2014 11:27 AM, john wrote:
> Maybe it's just me, but I've always thought it good form to pay attention
> to a polite request from a list owner.
>
> John K5MO
>
>
>
>>> I leave the price up to who would really like to own this. I will
>> consider any offer over $x. Does that make you
>>> happy?
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is active.
> http://www.avast.com
>
>
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>
> Yahoo Groups Links
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>
>

18639. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 20:00:19 UTC
From: Dan Galligan
Topic: 18622 Message: 18639

While I agree with the sentiments expressed here, to be the contrarian, and point out what is likely the obvious. If he leaves it open on price, and doesn't know the value, it does give the enterprising capitalist, the opportunity to low-ball him, and be in a position to profit from the seller's ignorance.
Still, the courteous thing to do, is to have an asking price. The folks here, know their value, and would certainly enlighten the seller, should his asking price be out of line, high, or low.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Feb 15, 2014, at 10:11, Garey Barrell <k4oah@mindspring.com> wrote:
>
> Kevin -
>
> It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
> free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> w7boz@... wrote:
>>
>>
>> Garey,
>>
>> I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
>> happy? I have a few offers all ready. So if you want a nice Drake station, make me an

offer.
>>
>> Kevin
>> W7BOZ
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

18640. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-15 20:20:15 UTC
From: Edward
Topic: 18622 Message: 18640

There is much historical data reference the price. At his asking price, he is not likely to sell it. But with his tone, he will be stuck with it.

> On Feb 15, 2014, at 23:00, Dan Galligan <w3rxo@...> wrote:
>
>
>
> While I agree with the sentiments expressed here, to be the contrarian, and point out what is likely the obvious. If he leaves it open on price, and doesn't know the value, it does give the enterprising capitalist, the opportunity to low-ball him, and be in a position to profit from the seller's ignorance.
> Still, the courteous thing to do, is to have an asking price. The folks here, know their value, and would certainly enlighten the seller, should his asking price be out of line, high, or low.
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
> Samuel Adams-Patriot and Brewer
>
>
> Sent from my iPad.
>
>> On Feb 15, 2014, at 10:11, Garey Barrell <k4oah@...> wrote:
>>
>> Kevin -
>>
>> It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
>> free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>

>>
>> w7boz@yahoo.com wrote:
>>>
>>>
>>> Garey,
>>>
>>> I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
>>> happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
>>>
>>> Kevin
>>> W7BOZ
>>
>>
>>
>> ------------------------------------
>>
>> Yahoo Groups Links
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>

18641. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 00:57:55 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18641

Hi Garey/All,

Alright I must have been careful enough. I'm still here and no Yucko-Shocko!

With the assistance of one of my Elmer's, Ian, VK2IAN (who does know what he is doing and is a licensed to play with mains voltages) I have now adapted the AC3 power supply with an input auto-transformer that drops the 250vac mains at this QTH down to 221vac. We also threw in a soft-start module for good measure.

Now the transformer when it runs unloaded produces a nice soft "I'm alive hum" and does not sound like it is going into saturation.

But I'm still worried because now some of my voltages look suspiciously low.

Here is what I have *unloaded*:-

+650vdc rail => +631vdc
+250vdc rail => +261vdc
BIAS => -43.7 to -86.4vdc
Filament Heater => 12.3vac

So my question is:-

"Is the radio (TR-4C) going to be happy with these levels?"

73, Steve.

> Steve -
>
> OK. Yes, the principle is the same. You don't have to get inside the
> AC-3 this way either. Connect your 'new'
> transformer primary to the mains, and put the secondary in series with the
> line cord to the supply. ALL external. Best
> to put it in a box of some sort to keep fingers out, but just a standard
> wall outlet on the box to plug the AC-3 into.
>
> One caveat.... When you start, be aware that if you connect the external
> transformer up incorrectly, it will BOOST the
> line voltage by the same amount! Be sure to check the output connector
> before plugging in the AC-3. If you get 250 VAC
> (!), reverse _either_ the primary -OR- secondary connections of the
> external transformer.
>
> Above all ** BE CAREFUL **.
>
> 73, Garey - K4OAH

> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve VK2SJA wrote:
>> Hi Garey,
>>
>> Thanks for the suggestion!
>>
>> The page I linked is not a product as such but a construction article
>> from
>> Silicon Chip magazine. Many of the construction articles they print wind
>> up being sold as "electronic kits" by various electronics stores. But
>> not
>> this particular one as far as I know.
>>
>> The article describes how to build what I believe I am correct in
>> calling
>> an auto-transformer. They used a fairly common garden variety
>> transformer
>> with multiple voltage taps on the secondary side. Then interconnected
>> the
>> primary of the transformer with the secondary in series. Using the "tap"
>> points on the secondary to arrive at your desired output voltage.
>>
>> The article does make note that you are supply limited by the current
>> handling capability of the secondary.
>>
>> The page I linked only contains the introduction to the article. They
>> want
>> you to pay for the rest :-) The details regarding the transformer used
>> are
>> on subsequent pages. But the all important circuit diagram is on the
>> first
>> page.
>>
>> Solving the problem with a "boost/buck" transformer as you suggest seems
>> a
>> very similar solution. A very important difference appears to be that
>> with
>> the boost/buck arrangement you describe, that the "killer" mains voltage
>> is all kept isolated on one side of the transformer(s). Which is not the
>> case with the auto-transformer. Obviously having this extra isolation
>> would be desirable. The Silicon Chip solution to the problem means that
>> you wouldn't have to mess with the internals of your appliance. A non
>> issue in this case.
>>
>> I have ordered a reasonably cheap (multi-tap 12-30v 120VA)

>> transformer that has a 30 volt 4 Amp secondary output. It would appear
>> that I could use this in either configuration.
>>
>> 73. Steve.
>>
>>
>>
>>> Steve -
>>> I don't see a price for the product you mention. All you need is a
>> filament transformer with a secondary voltage equal
>>> to how much you want to reduce the mains, and capable of handling the 3
>> Amps drawn by the power supply. Put the primary
>>> across the mains, and put the secondary in series with the primary of
>> the
>>> AC-3 transformer. Arrange the leads so that
>>> the filament voltage is 'out of phase' with the AC-3 primary, and
>>> you're
>> done.
>>> You can find a drawing for this as a 'boost/buck' transformer
>>> connection
>> all over the internet.
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>> Steve VK2SJA wrote:
>>>> Thanks everyone.
>>>> I understand now. While rebuilding the second attempt at a working
>> power
>>>> supply (AC3) I was idly thinking about adding a separate +250v fuse.
>>>> Easy
>>>> disconnect. But as I somewhat guessed this is not practical as the
>> radio
>>>> requires +250v for lots of things.
>>>> Even getting the correct voltages to the rig in Australia is proving
>>>> more
>>>> difficult than one might expect.
>>>> The first AC3 power supply I purchased had a transformer with only one
>> 110vac primary winding. So it could not be modified for 240vac
>>>> operation.
>>>> The second AC3 has the correct transformer with two primary windings.
>> Windings are in parallel for 110vac and series for 240vac. The colour
>> coding in the AC3 manual for the phasing of these windings was
>> incorrect
>>>> for my transformer BTW.
>>>> But even after I got the windings sorted out I'm rather convinced that
>> this transformer really wants 220vac. And not the 250vac that I've got
>> on
>>>> my wall outlet. We are officially 230vac in Australia since 2000 (it

>> was
>>>> 240vac previous to 2000). 250vac however is *just* inside the allowed
>>>> spec
>>>> and not uncommon for certain parts of the country closer to power
>> stations.
>>>> I brought the AC3 supply up on a variac looking at the voltages. At
>>>> 220vac
>>>> supply all the outputs look bang on the money. And the transformer is
>> *just* starting to make a comfortable I'm alive hum, barely audible.
>> Increase the supply to 250vac and the hum takes on the ominous growl
>> that
>>>> one normally associates with "Danger Will Robertson". And all the
>> supply
>>>> outputs look uncomfortably high (admittedly there is no load at this
>> stage).
>>>> I guess that the radio (TR-4C) and PSU might run at the elevated
>> voltage
>>>> levels but I suspect that it won't do much for the longevity of
>>>> either.
>> So it looks like I'm going to have to create a permanent
>>>> auto-transformer
>>>> arrangement to lower the mains voltage back down to 220vac.
>>>> I'm thinking to try build one of these:-
>>>> http://archive.siliconchip.com.au/cms/A_112364/article.html
>>>> Anyway, mostly I'm just posting for posterity in the hope it may help
>> someone else down the line who is trying to do the same thing. But any
>> advice and guidance is always gratefully received!
>>>> 73, Steve.
>>>>> It's less work to disconnect at the feed-through. You just have to
>> have a
>>>>> light touch with the soldering iron. I've never broken one - you
>>>>> just
>> need to not press too hard on it and not overheat it.
>>>>> Steve Wedge, W1ES/4
>>>>> Time flies like an arrow; fruit flies like a banana.
>>>>> From: vk2sja@...
>>>>> Sent: Sunday, February 02, 2014 12:12 AM
>>>>> To: DrakeRadio@yahoogroups.com
>>>>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>>>> A question for someone more knowledgable than me (just about everyone
>> :-).
>>>>> The neutralization method Steve describes where you temporarilly
>> disconnect the screen voltage (+250) to the PA cage.
>>>>> Can this be safely done in the power supply? Or are other parts of
>>>>> the
>> circuit dependent on the presence of +250v?
>>>>> 73, Steve
>>
>>
>>

>>
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>> ------------------------------------
>>
>> Yahoo Groups Links
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18642. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 01:02:05 UTC
From: Jim Shorney
Topic: 18602 Message: 18642

Like shooting fish in a .... barrell...

On Sat, 15 Feb 2014 12:27:33 -0500, Garey Barrell wrote:

>Biting my tongue... :-) Ow!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
>> Georges,
>>
>> I will need to go back and organize my notes to provide exact info. Part of
>> what I have done is based on the work of those two fine hams that you mention.
>> Audiophile improvements that some will no doubt snicker at include replacing
>> 2N3904 transistors with BC549B, metal film resistors in place of carbon,
>> ceramic coupling capacitors in the audio path replaced with poly, and
>> increasing the value of some decoupling capacitors. Frequency response
>> extension involves changing the values of selected parts as described by the
>> others. The theory there is not to produce a "hi-fi" radio per se, but to
>> improve articulation and reduce distortions caused by phase shift at the edges
>> of the audio passband. I have no measurements to prove definitively that this
>> is so, but it sounds good on paper... :)
>>
>> K9JU found the IMD to be quite objectionable to his ears, and went to greater
>> lengths than I did. He has not published his work anywhere that I know of at
>> this point.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>>
>> On 14 Feb 2014 22:53:38 -0800, f6dfz@... wrote:
>>
>>> Hi Jim, thanks for your comments. I saw some information on the PA0TRT and DL7MAJ
websites.
>>> What mods do you recommend ?
>>> I hate to tinker inside my rigs only to try and see. Your recommendations on the
important mods will be very much appreciated.

>>>
>>>
>>> Georges
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18643. R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 02:04:01 UTC
From: Bill Jackson
Topic: 18643 Message: 18643

I have a later model Drake R-4C where the S-meter won't stay zeroed. It wanders around, plus or minus a couple of S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won't stay adjusted.

The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or varying line voltage. Any ideas on where to start looking?

Thanks in advance.

Bill, K9RZ

18644. Re: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 02:44:44 UTC
From: K5MYJ
Topic: 18643 Message: 18644

Is the noise floor changing? Is there any pattern such as time of day?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----
From: Bill Jackson
To: drakeradio@yahoogroups.com
Sent: Saturday, February 15, 2014 6:04 PM
Subject: [DrakeRadio] R-4C S-Meter Wander

I have a later model Drake R-4C where the S-meter won't stay zeroed. It wanders around, plus or minus a couple of S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won't stay adjusted.

The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or varying line voltage. Any ideas on where to start looking?

Thanks in advance.

Bill, K9RZ

18645. RE: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 03:10:55 UTC
From: Bill Jackson
Topic: 18643 Message: 18645

The radio is on the test bench with no antenna connected. The noise floor does not seem to change.

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of K5MYJ
Sent: Saturday, February 15, 2014 8:45 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4C S-Meter Wander

Is the noise floor changing? Is there any pattern such as time of day?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----

From: Bill Jackson <mailto:k9rz@...>

To: drakeradio@yahoogroups.com

Sent: Saturday, February 15, 2014 6:04 PM

Subject: [DrakeRadio] R-4C S-Meter Wander

I have a later model Drake R-4C where the S-meter won't stay zeroed. It wanders around, plus or minus a couple of S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won't stay adjusted.

The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or varying line voltage. Any ideas on where to start looking?

Thanks in advance.

Bill, K9RZ

18646. Re: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 03:26:36 UTC
From: K5MYJ
Topic: 18643 Message: 18646

I this on all bands?

Turn off the AVC and monitor the speaker noise with a VTVM. Both fixed RF gain and fixed AF gain. Does the noise level to the speaker change?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Bill Jackson
To: DrakeRadio@yahoogroups.com
Sent: Saturday, February 15, 2014 7:10 PM
Subject: RE: [DrakeRadio] R-4C S-Meter Wander

The radio is on the test bench with no antenna connected. The noise floor does not seem to change.

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of K5MYJ
Sent: Saturday, February 15, 2014 8:45 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4C S-Meter Wander

Is the noise floor changing? Is there any pattern such as time of day?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----

From: Bill Jackson

To: drakeradio@yahoogroups.com

Sent: Saturday, February 15, 2014 6:04 PM

Subject: [DrakeRadio] R-4C S-Meter Wander

I have a later model Drake R-4C where the S-meter won't stay zeroed. It wanders around, plus or minus a couple of S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won't stay adjusted.

The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or varying line voltage. Any ideas on where to start looking?

Thanks in advance.

Bill, K9RZ

18647. Re: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 03:29:51 UTC
From: el34guy@...
Topic: 18643 Message: 18647

A weak avc/agc tube? Is it a 6EJ7?

Mark
W0NCL

-----Original Message-----
From: Bill Jackson <k9rz@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sat, Feb 15, 2014 9:11 pm
Subject: RE: [DrakeRadio] R-4C S-Meter Wander

The radio is on the test bench with no antenna connected. The noise floor does not seem to change.

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of K5MYJ
Sent: Saturday, February 15, 2014 8:45 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4C S-Meter Wander

Is the noise floor changing? Is there any pattern such as time of day?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----

From: Bill Jackson

To: drakeradio@yahoogroups.com

Sent: Saturday, February 15, 2014 6:04 PM

Subject: [DrakeRadio] R-4C S-Meter Wander

I have a later model Drake R-4C where the S-meter won’t stay zeroed. It wanders around, plus or minus a couple of S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won’t stay adjusted.
The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or varying line voltage. Any ideas on where to start looking?
Thanks in advance.
Bill, K9RZ

18648. TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 03:39:00 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18648

Afternoon Gentlemen,

TR-4C restoration.

Currently checking (and replacing) screen grid resistors 68ohm R42, 43 and 44.

Question. Do I care about R176, 177 and 178, also 68 ohm?

I have enough metal oxide 2 watt 68 ohm 5% to do all. Same size as ones coming out. Metal oxide suitable here?

Thanks!

73, Steve.

18649. Re: [DrakeRadio] W!AW / 6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 04:26:36 UTC
From: Jim Shorney
Topic: 18636 Message: 18649

Ugh, I was out all day and missed some of the high band action. Tomorrow. I'm eyeing tht LoTW triple-play award now. Fldigi does CW...

California had been easy for the most part. The closer in states are a b*tch to get on the high bands. Hawaii was easy on 10, but Texas? Noooo....

Glad you're at least talking to people on it.

73

-Jim

On Sat, 15 Feb 2014 12:56:10 -0500 (EST), Chgypsy@... wrote:

>Hi .
>1748 z w1aw / 6 San Diago
>28.507 sb ; third try TR7 no amp.
>Found out the counter doesn't work though. Carl

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18650. Re: [DrakeRadio] W!AW / 6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 04:47:00 UTC
From: William Houghton
Topic: 18636 Message: 18650

W1AW/6 in San Diego was a piece of cake last night on 80m from San Jose.

From: Jim Shorney <jshorney@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 15, 2014 8:26 PM
Subject: Re: [DrakeRadio] W!AW / 6

Ugh, I was out all day and missed some of the high band action. Tomorrow. I'm eyeing tht LoTW triple-play award now. Fldigi does CW...

California had been easy for the most part. The closer in states are a b*tch to get on the high bands. Hawaii was easy on 10, but Texas? Noooo....

Glad you're at least talking to people on it.

73

-Jim

On Sat, 15 Feb 2014 12:56:10 -0500 (EST), Chgypsy@... wrote:

>Hi .
>1748 z w1aw / 6 San Diago
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>Found out the counter doesn't work though. Carl

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18651. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 05:04:48 UTC
From: Garey Barrell
Topic: 18076 Message: 18651

Steve -

The HV is low. Gives me concern about the condition of the electrolytic filter caps. IF they are original, they're
probably leaky and are dragging down the voltage. If that IS the problem, they will overheat, and could even 'explode'
by blowing out their vents (provided for just such a contingency. If in fact they are original, you may want to get the
ESAC-3 (?) rebuild kits from Harbach.com.

I don't know if you have my CD or not, but there is a lot of information on the AC-3/4 in the MISC directory. With a
121 VAC primary voltage, the Red leads on the power transformer should measure around 265 VAC, the Yellow 108 VAC, the
Blue 98 VAC and the Green 14 VAC. The unloaded DC voltages should be considerably higher than what you are measuring.
740, 300, -100 VDC NO LOAD.

To answer your question, yes, the TR-4 should run ok at those voltage, but less than optimum, and won't make full output.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Garey/All,
>
> Alright I must have been careful enough. I'm still here and no Yucko-Shocko!
>
> With the assistance of one of my Elmer's, Ian, VK2IAN (who does know what
> he is doing and is a licensed to play with mains voltages) I have now
> adapted the AC3 power supply with an input auto-transformer that drops the
> 250vac mains at this QTH down to 221vac. We also threw in a soft-start
> module for good measure.
>
> Now the transformer when it runs unloaded produces a nice soft "I'm alive
> hum" and does not sound like it is going into saturation.
>
> But I'm still worried because now some of my voltages look suspiciously low.
>
> Here is what I have *unloaded*:-
>

> +650vdc rail => +631vdc
> +250vdc rail => +261vdc
> BIAS => -43.7 to -86.4vdc
> Filament Heater => 12.3vac
>
> So my question is:-
>
> "Is the radio (TR-4C) going to be happy with these levels?"
>
> 73, Steve.
>
>
>
>
>
>
>
>
>> Steve -
>>
>> OK. Yes, the principle is the same. You don't have to get inside the
>> AC-3 this way either. Connect your 'new'
>> transformer primary to the mains, and put the secondary in series with the
>> line cord to the supply. ALL external. Best
>> to put it in a box of some sort to keep fingers out, but just a standard
>> wall outlet on the box to plug the AC-3 into.
>>
>> One caveat.... When you start, be aware that if you connect the external
>> transformer up incorrectly, it will BOOST the
>> line voltage by the same amount! Be sure to check the output connector
>> before plugging in the AC-3. If you get 250 VAC
>> (!), reverse _either_ the primary -OR- secondary connections of the
>> external transformer.
>>
>> Above all ** BE CAREFUL **.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Steve VK2SJA wrote:
>>> Hi Garey,
>>>
>>> Thanks for the suggestion!
>>>
>>> The page I linked is not a product as such but a construction article
>>> from

>>> Silicon Chip magazine. Many of the construction articles they print wind
>>> up being sold as "electronic kits" by various electronics stores. But
>>> not
>>> this particular one as far as I know.
>>>
>>> The article describes how to build what I believe I am correct in
>>> calling
>>> an auto-transformer. They used a fairly common garden variety
>>> transformer
>>> with multiple voltage taps on the secondary side. Then interconnected
>>> the
>>> primary of the transformer with the secondary in series. Using the "tap"
>>> points on the secondary to arrive at your desired output voltage.
>>>
>>> The article does make note that you are supply limited by the current
>>> handling capability of the secondary.
>>>
>>> The page I linked only contains the introduction to the article. They
>>> want
>>> you to pay for the rest :-) The details regarding the transformer used
>>> are
>>> on subsequent pages. But the all important circuit diagram is on the
>>> first
>>> page.
>>>
>>> Solving the problem with a "boost/buck" transformer as you suggest seems
>>> a
>>> very similar solution. A very important difference appears to be that
>>> with
>>> the boost/buck arrangement you describe, that the "killer" mains voltage
>>> is all kept isolated on one side of the transformer(s). Which is not the
>>> case with the auto-transformer. Obviously having this extra isolation
>>> would be desirable. The Silicon Chip solution to the problem means that
>>> you wouldn't have to mess with the internals of your appliance. A non
>>> issue in this case.
>>>
>>> I have ordered a reasonably cheap (multi-tap 12-30v 120VA)
>>> transformer that has a 30 volt 4 Amp secondary output. It would appear
>>> that I could use this in either configuration.
>>>
>>> 73. Steve.
>>>
>>>
>>>
>>>> Steve -
>>>> I don't see a price for the product you mention. All you need is a
>>> filament transformer with a secondary voltage equal
>>>> to how much you want to reduce the mains, and capable of handling the 3
>>> Amps drawn by the power supply. Put the primary
>>>> across the mains, and put the secondary in series with the primary of

>>> the
>>>> AC-3 transformer. Arrange the leads so that
>>>> the filament voltage is 'out of phase' with the AC-3 primary, and
>>>> you're
>>> done.
>>>> You can find a drawing for this as a 'boost/buck' transformer
>>>> connection
>>> all over the internet.
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>> Steve VK2SJA wrote:
>>>>> Thanks everyone.
>>>>> I understand now. While rebuilding the second attempt at a working
>>> power
>>>>> supply (AC3) I was idly thinking about adding a separate +250v fuse.
>>>>> Easy
>>>>> disconnect. But as I somewhat guessed this is not practical as the
>>> radio
>>>>> requires +250v for lots of things.
>>>>> Even getting the correct voltages to the rig in Australia is proving
>>>>> more
>>>>> difficult than one might expect.
>>>>> The first AC3 power supply I purchased had a transformer with only one
>>> 110vac primary winding. So it could not be modified for 240vac
>>>>> operation.
>>>>> The second AC3 has the correct transformer with two primary windings.
>>> Windings are in parallel for 110vac and series for 240vac. The colour
>>> coding in the AC3 manual for the phasing of these windings was
>>> incorrect
>>>>> for my transformer BTW.
>>>>> But even after I got the windings sorted out I'm rather convinced that
>>> this transformer really wants 220vac. And not the 250vac that I've got
>>> on
>>>>> my wall outlet. We are officially 230vac in Australia since 2000 (it
>>> was
>>>>> 240vac previous to 2000). 250vac however is *just* inside the allowed
>>>>> spec
>>>>> and not uncommon for certain parts of the country closer to power
>>> stations.
>>>>> I brought the AC3 supply up on a variac looking at the voltages. At
>>>>> 220vac
>>>>> supply all the outputs look bang on the money. And the transformer is
>>> *just* starting to make a comfortable I'm alive hum, barely audible.
>>> Increase the supply to 250vac and the hum takes on the ominous growl
>>> that
>>>>> one normally associates with "Danger Will Robertson". And all the
>>> supply

>>>>> outputs look uncomfortably high (admittedly there is no load at this
>>> stage).
>>>>> I guess that the radio (TR-4C) and PSU might run at the elevated
>>> voltage
>>>>> levels but I suspect that it won't do much for the longevity of
>>>>> either.
>>> So it looks like I'm going to have to create a permanent
>>>>> auto-transformer
>>>>> arrangement to lower the mains voltage back down to 220vac.
>>>>> I'm thinking to try build one of these:-
>>>>> http://archive.siliconchip.com.au/cms/A_112364/article.html
>>>>> Anyway, mostly I'm just posting for posterity in the hope it may help
>>> someone else down the line who is trying to do the same thing. But any
>>> advice and guidance is always gratefully received!
>>>>> 73, Steve.
>>>>>> It's less work to disconnect at the feed-through. You just have to
>>> have a
>>>>>> light touch with the soldering iron. I've never broken one - you
>>>>>> just
>>> need to not press too hard on it and not overheat it.
>>>>>> Steve Wedge, W1ES/4
>>>>>> Time flies like an arrow; fruit flies like a banana.
>>>>>> From: vk2sja@...
>>>>>> Sent: Sunday, February 02, 2014 12:12 AM
>>>>>> To: DrakeRadio@yahoogroups.com
>>>>>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>>>>> A question for someone more knowledgable than me (just about everyone
>>> :-).
>>>>>> The neutralization method Steve describes where you temporarilly
>>> disconnect the screen voltage (+250) to the PA cage.
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>>>>>> the
>>> circuit dependent on the presence of +250v?
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>>>
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>>> Yahoo Groups Links
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> Yahoo Groups Links
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18652. Re: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 05:15:23 UTC
From: Garey Barrell
Topic: 18643 Message: 18652

Bill -

Gassy tube, probably in the IF. V5, V1 and V3 in that order.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bill Jackson wrote:
>
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> S-units over a period of hours. It is not the potentiometer, as the zero adjustment is very smooth, it simply won’t
> stay adjusted.
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> The receiver otherwise works fine and I cannot relate the problem to any outside cause, such as room temperature or
> varying line voltage. Any ideas on where to start looking?
>
> Thanks in advance.
>
> Bill, K9RZ
>
>

18653. Re: [DrakeRadio] AC3 and 240 volt AC mains

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 05:54:12 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18653

Hi Garey,

Thanks for the reply.

Power supply has already been reconditioned with AS4AC-3. The auto-transformer is constructed from a 4A multi-tap secondary. So I can re-tap to raise the output. I'll try raising the secondary back up to say 230vac and see what happens. I just remember the onset of what I associate with harsh saturation sound happened pretty quickly after 220vac. See if I can't hit a happy medium.

Of course this rig has output to burn with three tubes. And so if all that happens is slightly reduced output I'm not particularly worried. So long as the rest of the circuit hums along happily?

Yes, I most certainly do have your most excellent Service CD-ROM. Would not be attempting this without!!

I'll go and have a look-see at the AC-3 info.

73, Steve.

> Steve -
>
> The HV is low. Gives me concern about the condition of the electrolytic
> filter caps. IF they are original, they're
> probably leaky and are dragging down the voltage. If that IS the problem,
> they will overheat, and could even 'explode'
> by blowing out their vents (provided for just such a contingency. If in
> fact they are original, you may want to get the
> ESAC-3 (?) rebuild kits from Harbach.com.
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> on the AC-3/4 in the MISC directory. With a
> 121 VAC primary voltage, the Red leads on the power transformer should
> measure around 265 VAC, the Yellow 108 VAC, the
> Blue 98 VAC and the Green 14 VAC. The unloaded DC voltages should be
> considerably higher than what you are measuring.
> 740, 300, -100 VDC NO LOAD.
>
> To answer your question, yes, the TR-4 should run ok at those voltage, but
> less than optimum, and won't make full output.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

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> Steve VK2SJA wrote:
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>> module for good measure.
>>
>> Now the transformer when it runs unloaded produces a nice soft "I'm
>> alive
>> hum" and does not sound like it is going into saturation.
>>
>> But I'm still worried because now some of my voltages look suspiciously
>> low.
>>
>> Here is what I have *unloaded*:-
>>
>> +650vdc rail => +631vdc
>> +250vdc rail => +261vdc
>> BIAS => -43.7 to -86.4vdc
>> Filament Heater => 12.3vac
>>
>> So my question is:-
>>
>> "Is the radio (TR-4C) going to be happy with these levels?"
>>
>> 73, Steve.
>>
>>
>>
>>
>>
>>
>>
>>
>>
>>
>>> Steve -
>>>
>>> OK. Yes, the principle is the same. You don't have to get inside the
>>> AC-3 this way either. Connect your 'new'
>>> transformer primary to the mains, and put the secondary in series with
>>> the

>>> line cord to the supply. ALL external. Best
>>> to put it in a box of some sort to keep fingers out, but just a
>>> standard
>>> wall outlet on the box to plug the AC-3 into.
>>>
>>> One caveat.... When you start, be aware that if you connect the
>>> external
>>> transformer up incorrectly, it will BOOST the
>>> line voltage by the same amount! Be sure to check the output connector
>>> before plugging in the AC-3. If you get 250 VAC
>>> (!), reverse _either_ the primary -OR- secondary connections of the
>>> external transformer.
>>>
>>> Above all ** BE CAREFUL **.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Steve VK2SJA wrote:
>>>> Hi Garey,
>>>>
>>>> Thanks for the suggestion!
>>>>
>>>> The page I linked is not a product as such but a construction article
>>>> from
>>>> Silicon Chip magazine. Many of the construction articles they print
>>>> wind
>>>> up being sold as "electronic kits" by various electronics stores. But
>>>> not
>>>> this particular one as far as I know.
>>>>
>>>> The article describes how to build what I believe I am correct in
>>>> calling
>>>> an auto-transformer. They used a fairly common garden variety
>>>> transformer
>>>> with multiple voltage taps on the secondary side. Then interconnected
>>>> the
>>>> primary of the transformer with the secondary in series. Using the
>>>> "tap"
>>>> points on the secondary to arrive at your desired output voltage.
>>>>
>>>> The article does make note that you are supply limited by the current
>>>> handling capability of the secondary.
>>>>
>>>> The page I linked only contains the introduction to the article. They
>>>> want

>>>> you to pay for the rest :-) The details regarding the transformer used
>>>> are
>>>> on subsequent pages. But the all important circuit diagram is on the
>>>> first
>>>> page.
>>>>
>>>> Solving the problem with a "boost/buck" transformer as you suggest
>>>> seems
>>>> a
>>>> very similar solution. A very important difference appears to be that
>>>> with
>>>> the boost/buck arrangement you describe, that the "killer" mains
>>>> voltage
>>>> is all kept isolated on one side of the transformer(s). Which is not
>>>> the
>>>> case with the auto-transformer. Obviously having this extra isolation
>>>> would be desirable. The Silicon Chip solution to the problem means
>>>> that
>>>> you wouldn't have to mess with the internals of your appliance. A non
>>>> issue in this case.
>>>>
>>>> I have ordered a reasonably cheap (multi-tap 12-30v 120VA)
>>>> transformer that has a 30 volt 4 Amp secondary output. It would appear
>>>> that I could use this in either configuration.
>>>>
>>>> 73. Steve.
>>>>
>>>>
>>>>
>>>>> Steve -
>>>>> I don't see a price for the product you mention. All you need is a
>>>> filament transformer with a secondary voltage equal
>>>>> to how much you want to reduce the mains, and capable of handling the
>>>>> 3
>>>> Amps drawn by the power supply. Put the primary
>>>>> across the mains, and put the secondary in series with the primary of
>>>> the
>>>>> AC-3 transformer. Arrange the leads so that
>>>>> the filament voltage is 'out of phase' with the AC-3 primary, and
>>>>> you're
>>>> done.
>>>>> You can find a drawing for this as a 'boost/buck' transformer
>>>>> connection
>>>> all over the internet.
>>>>> 73, Garey - K4OAH
>>>>> Glen Allen, VA
>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>> and TR-4/C Service Supplement CDs
>>>>> <www.k4oah.com>
>>>>> Steve VK2SJA wrote:

>>>>>> Thanks everyone.
>>>>>> I understand now. While rebuilding the second attempt at a working
>>>> power
>>>>>> supply (AC3) I was idly thinking about adding a separate +250v fuse.
>>>>>> Easy
>>>>>> disconnect. But as I somewhat guessed this is not practical as the
>>>> radio
>>>>>> requires +250v for lots of things.
>>>>>> Even getting the correct voltages to the rig in Australia is proving
>>>>>> more
>>>>>> difficult than one might expect.
>>>>>> The first AC3 power supply I purchased had a transformer with only
>>>>>> one
>>>> 110vac primary winding. So it could not be modified for 240vac
>>>>>> operation.
>>>>>> The second AC3 has the correct transformer with two primary
>>>>>> windings.
>>>> Windings are in parallel for 110vac and series for 240vac. The colour
>>>> coding in the AC3 manual for the phasing of these windings was
>>>> incorrect
>>>>>> for my transformer BTW.
>>>>>> But even after I got the windings sorted out I'm rather convinced
>>>>>> that
>>>> this transformer really wants 220vac. And not the 250vac that I've got
>>>> on
>>>>>> my wall outlet. We are officially 230vac in Australia since 2000 (it
>>>> was
>>>>>> 240vac previous to 2000). 250vac however is *just* inside the
>>>>>> allowed
>>>>>> spec
>>>>>> and not uncommon for certain parts of the country closer to power
>>>> stations.
>>>>>> I brought the AC3 supply up on a variac looking at the voltages. At
>>>>>> 220vac
>>>>>> supply all the outputs look bang on the money. And the transformer
>>>>>> is
>>>> *just* starting to make a comfortable I'm alive hum, barely audible.
>>>> Increase the supply to 250vac and the hum takes on the ominous growl
>>>> that
>>>>>> one normally associates with "Danger Will Robertson". And all the
>>>> supply
>>>>>> outputs look uncomfortably high (admittedly there is no load at this
>>>> stage).
>>>>>> I guess that the radio (TR-4C) and PSU might run at the elevated
>>>> voltage
>>>>>> levels but I suspect that it won't do much for the longevity of
>>>>>> either.
>>>> So it looks like I'm going to have to create a permanent
>>>>>> auto-transformer
>>>>>> arrangement to lower the mains voltage back down to 220vac.

>>>>>> I'm thinking to try build one of these:-
>>>>>> http://archive.siliconchip.com.au/cms/A_112364/article.html
>>>>>> Anyway, mostly I'm just posting for posterity in the hope it may
>>>>>> help
>>>> someone else down the line who is trying to do the same thing. But any
>>>> advice and guidance is always gratefully received!
>>>>>> 73, Steve.
>>>>>>> It's less work to disconnect at the feed-through. You just have to
>>>> have a
>>>>>>> light touch with the soldering iron. I've never broken one - you
>>>>>>> just
>>>> need to not press too hard on it and not overheat it.
>>>>>>> Steve Wedge, W1ES/4
>>>>>>> Time flies like an arrow; fruit flies like a banana.
>>>>>>> From: vk2sja@...
>>>>>>> Sent: Sunday, February 02, 2014 12:12 AM
>>>>>>> To: DrakeRadio@yahoogroups.com
>>>>>>> Subject: Re: [DrakeRadio] RE: TR-4C 6JB6 Tubes
>>>>>>> A question for someone more knowledgable than me (just about
>>>>>>> everyone
>>>> :-).
>>>>>>> The neutralization method Steve describes where you temporarilly
>>>> disconnect the screen voltage (+250) to the PA cage.
>>>>>>> Can this be safely done in the power supply? Or are other parts of
>>>>>>> the
>>>> circuit dependent on the presence of +250v?
>>>>>>> 73, Steve
>>>>
>>>>
>>>>
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>>>> ------------------------------------
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>>>> Yahoo Groups Links
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>> Yahoo Groups Links
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18654. TR-4C meter shunt resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 07:38:41 UTC
From: Steve VK2SJA
Topic: 18654 Message: 18654

Hi All,

After advice and guidance regarding TR-4C meter shunt resistors. Values and adjustment procedure.

I checked R45? (doing this from memory) on the relay PCB measured 2 ohms spot on.

Is it R13 or R13A that makes up the other part of this story (or both)?

R13A is the one mounted on the plate control shaft slider switch and factory selected.

So what s the correct procedure here to make sure the meter is reading correctly?

73, Steve

18655. Re: [DrakeRadio] TR-4C meter shunt resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 08:05:27 UTC
From: L L bahr
Topic: 18654 Message: 18655

Steve,

My friend WA5VGO just went through changing the TEST resistor on the switch around a week ago. First off, he told me he found the meter was not linear and will not be totally accurate everywhere on the scale. So he decided to make it accurate at 400ma, I believe. He temporarily installed a VOM in line or in series with the power supply feeding the finals. He then tuned the transceiver up to 400 ma based on his VOM and then test selected a resistor on the slide switch to show the same 400 ma reading. What I can't tell you right now is where he installed the VOM in line with the power supply feeding the tubes. His thought was to make the meter pretty accurate around where he most likely would be drawing current during normal operating of the rig during tune up. (His resistor was originally not giving an accurate reading at 400 ma and as I said, he found the meter on the Drake was not accurate at other current levels. He did this to three of his TR-4s and he said each one needed a different resistor and the linearity of the three meters were not the same. That is a meter was more linear on one radio then on one of the other radios.)

Lee, w0vt

Hi All,

After advice and guidance regarding TR-4C meter shunt resistors. Values
and adjustment procedure.

I checked R45? (doing this from memory) on the relay PCB measured 2 ohms
spot on.

Is it R13 or R13A that makes up the other part of this story (or both)?

R13A is the one mounted on the plate control shaft slider switch and
factory selected.

So what s the correct procedure here to make sure the meter is reading
correctly?

73, Steve

18656. Re: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 12:58:58 UTC
From: <w5rkl@...>
Topic: 18643 Message: 18656

I agree.

If the S meter changes as the RF gain is rotated CCW and CW, i.e., meter rises above and falls back towards zero, then the operating bias applied to the grid of the tubes through the RF gain control is working. By rotating the RF gain control CCW or CW, the operating bias to the tubes is changed, made more negative in a CCW rotation and made less negative rotating in a CW rotation. The S meter will respond to the grid voltage changes to these stages, i.e., the S meter rise above zero (CCW rotation) or fall back towards zero (CW rotation). This test and the following VTVM grid voltage test/measurement is performed with the antenna disconnected.

Set the RF gain control fully CW then connect a VTVM to pin 1 of each tube, V5, then V1 and V3. The operating grid voltage should be negative. As the tubes warm up a gassy tube's grid voltage will become less negative and could even change to a positive voltage. The offending gassy tube's grid voltage will be much more negative or become positive then the other tubes.

I had this type of problem with my Heathkit SB-100, the first IF amp, a 6AU6, was very gassy which caused its grid voltage to be initially a negative 1.5VDC from a cold power on. However, during the first minute, the gird voltage would become less and less negative and finally settle, after 2 minutes, at +1.7VDC. The gassy first IF amp caused the second IF amp's grid voltage to change positive as well but at a less positive level. +.8vdc. The gassy first IF amp also affected the receiver's RF amp and first mixer making their grid voltage less negative but not positive.

73
Mike W5RKL

18657. Re: [DrakeRadio] TR-4C meter shunt resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 14:57:27 UTC
From: Garey Barrell
Topic: 18654 Message: 18657

Steve -

Yes, R13A on 'my' schematic is the 'select at test' resistor and is there to compensate for R45 tolerance and meter
characteristics. The meters are NOT precision devices, I think Drake paid less than $1 for them in production
quantities. The R13A was mine, because there were TWO R13s on the schematic! :-)

The most important reading for the PLATE meter is the BIAS measurement, so that is where you need to calibrate it. The
much higher 'loaded' current is of no real importance, there you're only looking for a peak or null. So. Assuming you
have a decent DMM, easiest is to measure the value of the shunt resistor (R45) as close as you can, then measure the
voltage drop across it as accurately as you can. Then e.g., adjust the BIAS for 0.20 VDC across R45 and select a
resistor for R13A until the meter reads 100 mA. I use a small pot, and adjust it for exactly 0.20 VDC. It's good to
approach 0.20 VDC from higher and lower to see how the meter responds. Then measure the resistance of the pot and
install the closest 5% (or 1% if you have them) resistor.

If you don't have a DMM, you can just ground the 'bottom' end of R45 through a mA meter and set for 100 mA.

This gives you what you need to set and/or keep an eye on the BIAS current, the rest of the scale is unimportant.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
> After advice and guidance regarding TR-4C meter shunt resistors. Values
> and adjustment procedure.
>
> I checked R45? (doing this from memory) on the relay PCB measured 2 ohms
> spot on.
>
> Is it R13 or R13A that makes up the other part of this story (or both)?
>
> R13A is the one mounted on the plate control shaft slider switch and

> factory selected.
>
> So what s the correct procedure here to make sure the meter is reading
> correctly?
>
> 73, Steve
>
>

18658. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 15:09:50 UTC
From: Steve Wedge
Topic: 18076 Message: 18658

I wouldn't replace any, unless they show signs of distress or are out of tolerance.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve VK2SJA
Sent: Saturday, February 15, 2014 10:39 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4C screen grid resistors?

Afternoon Gentlemen,

TR-4C restoration.

Currently checking (and replacing) screen grid resistors 68ohm R42, 43 and 44.

Question. Do I care about R176, 177 and 178, also 68 ohm?

I have enough metal oxide 2 watt 68 ohm 5% to do all. Same size as ones coming out. Metal oxide suitable here?

Thanks!

73, Steve.

18659. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 11:34:28 UTC
From: <w7boz@...>
Topic: 18622 Message: 18659

Group,

It was not my intent to be rude. I was just asking if it made him happy. I just wanted to know if my post was better. People mistook a simple question as being rude. I am not sure of what it is really worth. That is why I left it up for offers. So I looked and came up with a number. Is it too high? Is it too low? I don't know. I hoped that make an offer would give me some ideas. I am sorry if my posts sounded negative. I thought I would post here, to give people who actually appreciate these radios a chance to own one. Again, sorry if it sounded negative.

Kevin
W7BOZ

---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote:

Kevin -

It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w7boz@... mailto:w7boz@... wrote:
>
>
> Garey,
>
> I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
> happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
>
> Kevin
> W7BOZ
>

18660. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 15:46:46 UTC
From: Steve Wedge
Topic: 18622 Message: 18660

I find sometimes that a terse, to the point message in an email can be interpreted as rude. Please, everyone, give the benefit of the doubt in those sorts of messages.

73 & Enjoy Those Drakes...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: w7boz@yahoo.com
Sent: Sunday, February 16, 2014 6:34 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Group,

It was not my intent to be rude. I was just asking if it made him happy. I just wanted to know if my post was better. People mistook a simple question as being rude. I am not sure of what it is really worth. That is why I left it up for offers. So I looked and came up with a number. Is it too high? Is it too low? I don't know. I hoped that make an offer would give me some ideas. I am sorry if my posts sounded negative. I thought I would post here, to give people who actually appreciate these radios a chance to own one. Again, sorry if it sounded negative.

Kevin
W7BOZ

---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote:

Kevin -

It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w7boz@... wrote:

>
>

> Garey,
>
> I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
> happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
>
> Kevin
> W7BOZ
>

18661. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 16:16:06 UTC
From: Garey Barrell
Topic: 18622 Message: 18661

Kevin -

OK. All I ask is a 'target' price. There are several sources of pricing info around, including eBay (about +20% over
market), WB4HFN, etc. Nothing wrong with posting a price you think is high, you'll get either offers of less, or
questions of your sanity, or 'nothing'. You can then decide to accept a lower offer, reduce the price, or put it up for
auction on one of the sites.

It's also good to offer a statement of general condition, as that can have considerable effect on what someone is
willing to pay. Based on WB4HFN prices, $600 is a reasonable starting point for equipment in average to better condition.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w7boz@... wrote:
>
>
> Group,
>
> It was not my intent to be rude. I was just asking if it made him happy. I just wanted to know if my post was better.
> People mistook a simple question as being rude. I am not sure of what it is really worth. That is why I left it up for
> offers. So I looked and came up with a number. Is it too high? Is it too low? I don't know. I hoped that make an offer
> would give me some ideas. I am sorry if my posts sounded negative. I thought I would post here, to give people who
> actually appreciate these radios a chance to own one. Again, sorry if it sounded negative.
>
> Kevin
> W7BOZ
>
>
> ---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote:
>
> Kevin -
>

> It makes me 'happier'. All I'm asking is that you set a price when you post items for sale on this reflector. You're
> free to accept less, or more. If you wish to conduct an auction, there are sites dedicated to that.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> w7boz@... <mailto:w7boz@...> wrote:
>
> >
> >
> > Garey,
> >
> > I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
> > happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
> >
> > Kevin
> > W7BOZ
> >
>
>
>
>

18662. RE: [DrakeRadio] R-4C S-Meter Wander

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 16:46:14 UTC
From: Bill Jackson
Topic: 18643 Message: 18662

Thanks to everyone who responded, especially Garey and Mike. It gives me a good place to start looking.

73 de Bill, K9RZ

18663. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 17:49:59 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 18663

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

18664. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 18:05:08 UTC
From: Jim Anderson
Topic: 18622 Message: 18664

Hi, Kevin.

As one who jumped on your initial response, my apologies. I have a 4B twins station that I'll be looking to sell sometime this year or next, and I'd certainly hope others would cut me some slack in a similar situation. Good luck with your sale.

73, Jim - KA9VHG

On 02/16/2014 05:34 AM, w7boz@... wrote:
>
>
> Group,
>
> It was not my intent to be rude. I was just asking if it made him happy.
> I just wanted to know if my post was better. People mistook a simple
> question as being rude. I am not sure of what it is really worth. That
> is why I left it up for offers. So I looked and came up with a number.
> Is it too high? Is it too low? I don't know. I hoped that make an offer
> would give me some ideas. I am sorry if my posts sounded negative. I
> thought I would post here, to give people who actually appreciate these
> radios a chance to own one. Again, sorry if it sounded negative.
>
> Kevin
> W7BOZ
>
>
> ---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote:
>
> Kevin -
>
> It makes me 'happier'. All I'm asking is that you set a price when you
> post items for sale on this reflector. You're
> free to accept less, or more. If you wish to conduct an auction, there
> are sites dedicated to that.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> w7boz@... <mailto:w7boz@...> wrote:
>
> >

> >
> > Garey,
> >
> > I leave the price up to who would really like to own this. I will consider any offer over $600. Does that make you
> > happy? I have a few offers all ready. So if you want a nice Drake station, make me an offer.
> >
> > Kevin
> > W7BOZ
> >
>
>
>
>

18665. Re: [DrakeRadio] W!AW / 6

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 18:19:15 UTC
From: Jim Shorney
Topic: 18636 Message: 18665

Most of California is loud here in flyover country. I just had to use the amp to snag Wisconsin on 10 Meters a few minutes ago. I haven't managed to get an all band sweep of any of them yet, but I've come close.

73

-Jim
NU0C

On Sat, 15 Feb 2014 20:47:00 -0800 (PST), William Houghton wrote:

>W1AW/6 in San Diego was a piece of cake last night on 80m from San Jose.

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18666. Re: [DrakeRadio] RE: TR7A sensitivity

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 18:42:32 UTC
From: Jim Shorney
Topic: 18602 Message: 18666

Thanks for your comments, Richard. I have some interesting 3d spectrograms from Wavelab LE that show something is happening (or, less of something is happening) between the before and after samples. I wouldn't expect my methodology to pass critical muster, but I set up a crude "simulated" 2-tone test with my HP 8656 signal generator. We work with the tools we have. The bottom line is that the R-7 is easier to listen to now, as was the TR-7 after the first round of changes. The fact that I go to the R-7 receiver first now was somewhat surprising to me. But shouldn't it be that way? Arguably the R-7 should be a "better" receiver than the TR-7.

All "audiophool" kidding aside, these component changes at least won't hurt anything (except perhaps the "collector's value" of the radio, which I don't care so much about). And if they help, that's great. K9JU is a CW operator, and his comments were that the weaker CW signals were modulated by the noise in the TR-7. The problem seemed centered around the audio preamp Q1113, but the only cure he found for it was to make it an emitter follower. He had to add extra "stuff" to overcome the loss of voltage gain, which I wanted to avoid. He did a lot of work on this, and seems quite happy with the results.

73
-Jim
NU0C

On Sat, 15 Feb 2014 09:03:53 -0800, Richard Knoppow wrote:

>A couple of things from an old audio person: There is
>probably no advantage in changing from ceramic to plastic
>film caps. Very high K ceramics, Class-2, have some voltage
>coefficient of capacitance but in most audio applications
>such as coupling capacitors there is a DC voltage on the cap
>which is quite a bit higher than the AC voltage so the
>effect of the capacitance variation is minimal. Capacitors
>do not cause harmonic distortion. The voltage variation
>could, in principal, cause intermodulation distortion if
>only AC is present.
>Carbon composition resistor also have a voltage
>coefficient of resistance. Here again the amount depends on
>the ratio of DC to AC on the resistor. Either carbon or
>metal film resistors have virtually no voltage variation.
>It was found long ago that film resistors can make a
>detectably difference in feedback networks.
>My experience is that clean audio in a communications
>receiver definitely does make a difference, even with CW,
>because the distortion, both IM and harmonic, exaggerates
>the effect of noise and QRM.
>IM is best measured with a spectrum analyzer but can

>also be measured with a selective voltmeter. There were
>standardized methods of measuring IM using two frequencies
>but both of the methods commonly used in motion picture
>optical recording could miss problems so its a good idea to
>measure using several combinations of frequencies. The two
>general methods are: 1, to use two widely spaced
>frequencies, one near each end of the audio band limit and
>look for modulation of the high frequency by the low
>frequency, and, 2, to use two closely spaced frequencies of
>equal amplitude. The second method can be used on narrow
>bandwidth channels and is the desirable one for distortion
>measurements of SSB amplifiers. Harmonic distortion
>measurements are not suitable for narrow band systems since
>the frequency limitations will eliminate the harmonics.
>IMO IMD is very audible. The two kinds of distortion come
>from slightly different mechanisms in the amplifier so one
>must measure both.
>Another opinion: Simple and not very good audio
>amplifiers are very common in communications receivers, I
>think because the assumption was made that the quality
>didn't matter because of the limited bandwidth and limited
>dynamic range of the signal. This is, again IMO, a mistake.
>Of course, simple amplifiers are also cheap. "Good enough"
>often isn't.
>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL
>dickburk@...

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18667. TR5 & TR7, and 4 Line with Heil HC 5 Mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 19:38:16 UTC
From: <ko4bg1@...>
Topic: 18667 Message: 18667

Hi Guys, Will a Heil HC5 work with the Drakes? If so what pins to hook up on? I want to put the element in a 10 DA head. Thanks
Woody

18668. Curious

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 20:48:37 UTC
From: Dan Galligan
Topic: 18668 Message: 18668

I'm curious, so I must ask. I don't regularly check eBay, to see if there have been any sold, but I have always wanted one radio, over and above all others. But, I am not sure if it ever was a realistic dream, or more akin to wanting to locate buried treasure.
Has anyone on the list ever owned, or operated, a TR-77? I've seen photos, but, all of them were seemingly Drake promotional photos. I have never known anyone who actually had hands on one.
Now, the $64,000.00 question is.....IF they ever were produced, and marketed, does anyone know how much they ought to fetch? I'm guessing that they make hen's teeth appear to be common, and slightly more scarce, than Bigfoot. Therefore, I would certainly expect them to make the Gold Dust Twins, appear to be a real bargain. Am I in the right ballpark, or is it more common than I think?

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

18669. Re: [DrakeRadio] Curious

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 21:01:00 UTC
From: geoffrey mendelson
Topic: 18668 Message: 18669

On 2/16/2014 10:48 PM, Dan Galligan wrote:
> I'm curious, so I must ask. I don't regularly check eBay, to see if
> there have been any sold, but I have always wanted one radio, over and
> above all others. But, I am not sure if it ever was a realistic dream,
> or more akin to wanting to locate buried treasure.
> Has anyone on the list ever owned, or operated, a TR-77? I've seen
> photos, but, all of them were seemingly Drake promotional photos. I
> have never known anyone who actually had hands on one.
> Now, the $64,000.00 question is.....IF they ever were produced, and
> marketed, does anyone know how much they ought to fetch? I'm guessing
> that they make hen's teeth appear to be common, and slightly more
> scarce, than Bigfoot. Therefore, I would certainly expect them to make
> the Gold Dust Twins, appear to be a real bargain. Am I in the right
> ballpark, or is it more common than I think?

If I remember correctly there was a guy in the UK who was selling one a few years back. It was posted on another Drake centered list. Again, if my memory was correct, he wanted around 3,000 for it, but I don't remember if that was dollars or pounds. To be honest, it was the only time before your email that I ever heard of one.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18670. Inquiry about Motorola S-1063 B DC Meter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 21:04:33 UTC
From: Bernie
Topic: 18670 Message: 18670

Just "mining" trying to find someone with a Motorola S-1063B DC Meter that can look something up in the manual for me. I cannot find a manual on-line anywhere. Need to know what voltage the 2nd battery is. Battery 1 is 22.5 volts. It won't work with a "C" cell 1.5 V DC...so it must be something else.

Thanks in advance for any info.

Bernie in ND
WDØGMD

18671. Re: [DrakeRadio] Curious

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 21:11:02 UTC
From: VE3AX/7
Topic: 18668 Message: 18671

Dan:

I can’t answer if there ever was a real TR-77 - Sindre would be able to answer that one, but I can say the later production model TR-4310 is real. I have one paired with a “homebrew” R-4245 (R-4245 panel on an RR-3) and an MN-4438 tuner. Makes a really nice 100 w station with RV-75-like stability. It is not as convenient to use as a ham rig though, as the start-up frequencies for the band segments are outside the ham bands. I’m just partial to the Drake commercial rack mount gear.

The knobs are different on the TR-4310 versus that shown in the TR-77 literature. Not sure if there were other differences.

Other really rare items in that line up include the L-77 Amp and the MN-4439 high power tuner. There are probably a few of those floating around France/Italy from an old Monaco commercial station. Sindre managed to get hold of one of the L-77’s but never heard if he managed to find a 4439 yet.

There were about 20 TR-4310’s brought into Canada when Fred Hammond (SK) of Hammond Manufacturing got a deal on some of the last ones made and lined up a bunch for his friends. I picked up mine from one of those friends of Fred’s many years ago. Price was not outrageous, but not cheap either – not as bad as a late TR-7A /RV-75 these days! Most of them were sold off, many to Europeans who paid pretty big dollars for them. I only know of one other TR-4310 remaining in Canada, but of course there could be others I am not aware of.

73

Peter
VE3AX/7

From: Dan Galligan
Sent: Sunday, February 16, 2014 12:48 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Curious

I'm curious, so I must ask. I don't regularly check eBay, to see if there have been any sold, but I have always wanted one radio, over and above all others. But, I am not sure if it ever was a realistic dream, or more akin to wanting to locate buried treasure.
Has anyone on the list ever owned, or operated, a TR-77? I've seen photos, but, all of them were seemingly Drake promotional photos. I have never known anyone who actually had hands on one.
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73,
Dan
W3RXO/W5
Evening Shade, OK
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Samuel Adams-Patriot and Brewer

Sent from my iPad.

18672. Re: [DrakeRadio] TR5 & TR7, and 4 Line with Heil HC 5 Mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-16 21:53:08 UTC
From: Doug
Topic: 18667 Message: 18672

Yes it works. I had to install a tube mic pre-amp in line to provide sufficient drive to the radios TR-4 and T-4XC. I've used several Heil mics on the drakes and they just don't drive the rigs at all. Otherwise you have to be within an inch if the microphone. If you're referring to the XLR connector pin 1 and 2 are the mic, I believe pin 2 is mic positive white and pin 1 is mic negative black. Look at Heil's website and the have a mic wiring guide. Black and shield go to the ground on the plug that goes to the rig and white goes to the ring. Pin 3 and 4 are PTT. ONE needs to go to the tip and be grounded when PTT IS pushed. Double check pin out as I don't have it in front of me.

Sent from my iPhone

> On Feb 16, 2014, at 14:38, <ko4bg1@gmail.com> wrote:
>
> Hi Guys, Will a Heil HC5 work with the Drakes? If so what pins to hook up on? I want to put the element in a 10 DA head.
>
> Thanks
> Woody
>

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18673. Re: [DrakeRadio] TR5 & TR7, and 4 Line with Heil HC 5 Mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 00:04:18 UTC
From: Jim Shorney
Topic: 18667 Message: 18673

I always thought that was good communcations practice....

73

-Jim
NU0C

On Sun, 16 Feb 2014 16:53:08 -0500, Doug wrote:

>Otherwise you have to be within an inch if the microphone.

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18674. Re: [DrakeRadio] TR5 & TR7, and 4 Line with Heil HC 5 Mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 00:55:12 UTC
From: Doug
Topic: 18667 Message: 18674

Jim,

You are absolutely correct however; I wanted to boom mount my Heil Classic so that I did not have to hold the heavy base while I talk. I set the boom such that my face was around 3" to 4" away from the mic; this allows me to have easier access to my computer screen, watch meters and keep an overall eye on the operating station. I found that at this distance the mic fell on its face. At the suggestion of my Elmer, I bought a $40 Behringer Tube mic preamp; I add just a smidge of preamp gain and all is solved. I monitor for over drive and background noise and everything seems to work quite well.

I'm 6'5" and no matter how I configure a desk mic, it's no where near my face; the desk is too short and so is the mic stand. I therefore end up holding the 10 pound base. After about 30 minutes or so, I get tired of holding it. The boom works out great for this but the stock Heil Classic doesn't have anywhere enough drive for the radio. On the other hand, my UN amplified D104 mics will overdrive the rigs at a 3" distance.

This is why I am doing what I am. Maybe someone has a better solution or has more info to add however; this is my experience.

Sent from my iPhone

> On Feb 16, 2014, at 19:04, "Jim Shorney" <jshorney@...> wrote:
>
>
> I always thought that was good communcations practice....
>
> 73
>
> -Jim
> NU0C
>
> On Sun, 16 Feb 2014 16:53:08 -0500, Doug wrote:
>
> >Otherwise you have to be within an inch if the microphone.
>
> --
> The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

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18675. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 01:37:59 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18675

Hi Steve,

No signs of stress. But definitely outside 5% tolerance.

So was R176, out of tolerance that is, when I pulled one end and checked it out of circuit (tubes still installed - not sure of effect on measurements).

As I try and use the Yahoo search facility to learn from the past I can see lots of recommendations to replace the "screen grid resistors" which if my understanding is correct are the R42, 43 and 44. Which all come from the same tag strip point, one for each tube. But I don't see in the archives regular discussion about replacing R176, 177 and 178. So I'm guessing that these are somewhat non-critical in value?

73, Steve
VK2SJA

> I wouldn't replace any, unless they show signs of distress or are out of
> tolerance.
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>
> From: Steve VK2SJA
> Sent: Saturday, February 15, 2014 10:39 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] TR-4C screen grid resistors?
>
>
>
> Afternoon Gentlemen,
>
> TR-4C restoration.
>
> Currently checking (and replacing) screen grid resistors 68ohm R42, 43 and
> 44.
>
> Question. Do I care about R176, 177 and 178, also 68 ohm?

>
> I have enough metal oxide 2 watt 68 ohm 5% to do all. Same size as ones
> coming out. Metal oxide suitable here?
>
> Thanks!
>
> 73, Steve.
>
>
>
>

18676. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 02:41:55 UTC
From: Richard Knoppow
Topic: 18076 Message: 18676

----- Original Message -----
From: "Steve VK2SJA" <vk2sja@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 16, 2014 5:37 PM
Subject: Re: [DrakeRadio] TR-4C screen grid resistors?

> Hi Steve,
>
> No signs of stress. But definitely outside 5% tolerance.
>
> So was R176, out of tolerance that is, when I pulled one
> end and checked
> it out of circuit (tubes still installed - not sure of
> effect on
> measurements).
>
> As I try and use the Yahoo search facility to learn from
> the past I can
> see lots of recommendations to replace the "screen grid
> resistors" which
> if my understanding is correct are the R42, 43 and 44.
> Which all come from
> the same tag strip point, one for each tube. But I don't
> see in the
> archives regular discussion about replacing R176, 177 and
> 178. So I'm
> guessing that these are somewhat non-critical in value?
>
> 73, Steve
> VK2SJA

From the schematic it doesn't look like any of these are critical enough to require precision resistors. 42, 43, 44, are screen bypass resistors, I am not quite sure what 176, 177, and 178 are supposed to do. They are connected across the two screen pins of the tube so are across essentially a short circuit but may be parasitic suppressers. All were rated at 10% originally. They can probably be pretty far off this without having any serious effect. New resistors are typically 5% and can be used if there is any doubt. It is very common for carbon composition resistors to rise in value with time and heat although the amount varies a lot with brand and value. It is high value resistors, say 1/2 meg and above which are often very far off and should be changed. My experience with Drake is that they used a couple

of brands of resistors, the ones with smooth surfaces seem
to be pretty stable, the ones with longitudinal mold marks
are no at all stable.
I think the cathode resistors should be pretty close
since they are part of the circuit that measures total
current. Modern metal oxide resistors are usually 5% and
will last forever.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18677. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 03:24:07 UTC
From: Steve Wedge
Topic: 18076 Message: 18677

I tend to agree that screen resistors are less critical. However, if I measured any and they were out of tolerance, I'd change them.

Since we seek matched PA tubes to keep one from doing substantially more work than the other[s] we do need to keep an eye on the cathode resistors and the plate parasitic suppressors - but especially the cathode resistors. They're only 15 ohms and are in series with the flow of plate current. It isn't as much if they're 15, or 18 or 13 ohms, than that they all be the same value within a couple percent. If you have one that's 15 and the other is 18 ohms, they're different by 20% based on the 15 ohm resistor's value. Either that, or, if you have a set that's not quite matched, put the "hotter" tube in the 18 ohm resistor's socket.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Richard Knoppow
Sent: Sunday, February 16, 2014 9:41 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C screen grid resistors?

----- Original Message -----
From: "Steve VK2SJA" <vk2sja@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 16, 2014 5:37 PM
Subject: Re: [DrakeRadio] TR-4C screen grid resistors?

> Hi Steve,
>
> No signs of stress. But definitely outside 5% tolerance.
>
> So was R176, out of tolerance that is, when I pulled one
> end and checked
> it out of circuit (tubes still installed - not sure of
> effect on
> measurements).
>
> As I try and use the Yahoo search facility to learn from
> the past I can
> see lots of recommendations to replace the "screen grid
> resistors" which
> if my understanding is correct are the R42, 43 and 44.
> Which all come from

> the same tag strip point, one for each tube. But I don't
> see in the
> archives regular discussion about replacing R176, 177 and
> 178. So I'm
> guessing that these are somewhat non-critical in value?
>
> 73, Steve
> VK2SJA

From the schematic it doesn't look like any of these are critical enough to require precision resistors. 42, 43, 44, are screen bypass resistors, I am not quite sure what 176, 177, and 178 are supposed to do. They are connected across the two screen pins of the tube so are across essentially a short circuit but may be parasitic suppressers. All were rated at 10% originally. They can probably be pretty far off this without having any serious effect. New resistors are typically 5% and can be used if there is any doubt. It is very common for carbon composition resistors to rise in value with time and heat although the amount varies a lot with brand and value. It is high value resistors, say 1/2 meg and above which are often very far off and should be changed. My experience with Drake is that they used a couple of brands of resistors, the ones with smooth surfaces seem to be pretty stable, the ones with longitudinal mold marks are no at all stable.
I think the cathode resistors should be pretty close since they are part of the circuit that measures total current. Modern metal oxide resistors are usually 5% and will last forever.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...om.com

18678. Re: [DrakeRadio] Curious

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 04:25:57 UTC
From: geoffrey mendelson
Topic: 18668 Message: 18678

On 2/16/2014 11:11 PM, VE3AX/7 wrote:
>
> Dan:
> I can’t answer if there ever was a real TR-77 - Sindre would be able
> to answer that one, but I can say the later production model TR-4310
> is real. I have one paired with a “homebrew” R-4245 (R-4245 panel on
> an RR-3) and an MN-4438 tuner. Makes a really nice 100 w station with
> RV-75-like stability. It is not as convenient to use as a ham rig
> though, as the start-up frequencies for the band segments are outside
> the ham bands. I’m just partial to the Drake commercial rack mount gear.
> The knobs are different on the TR-4310 versus that shown in the TR-77
> literature. Not sure if there were other differences.
> Other really rare items in that line up include the L-77 Amp and the
> MN-4439 high power tuner. There are probably a few of those floating
> around France/Italy from an old Monaco commercial station. Sindre
> managed to get hold of one of the L-77’s but never heard if he managed
> to find a 4439 yet.
> There were about 20 TR-4310’s brought into Canada when Fred Hammond
> (SK) of Hammond Manufacturing got a deal on some of the last ones made
> and lined up a bunch for his friends. I picked up mine from one of
> those friends of Fred’s many years ago. Price was not outrageous, but
> not cheap either – not as bad as a late TR-7A /RV-75 these days! Most
> of them were sold off, many to Europeans who paid pretty big dollars
> for them. I only know of one other TR-4310 remaining in Canada, but
> of course there could be others I am not aware of.
>

Sorry to dissapoint, but to amend my previous posting, this may have
been what he was selling. All I remembered is that its was white
rackmount TR-7.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18679. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 04:31:05 UTC
From: Richard Knoppow
Topic: 18076 Message: 18679

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 16, 2014 7:24 PM
Subject: Re: [DrakeRadio] TR-4C screen grid resistors?

I tend to agree that screen resistors are less critical.
However, if I measured any and they were out of tolerance,
I'd change them.

Since we seek matched PA tubes to keep one from doing
substantially more work than the other[s] we do need to keep
an eye on the cathode resistors and the plate parasitic
suppressors - but especially the cathode resistors. They're
only 15 ohms and are in series with the flow of plate
current. It isn't as much if they're 15, or 18 or 13 ohms,
than that they all be the same value within a couple
percent. If you have one that's 15 and the other is 18
ohms, they're different by 20% based on the 15 ohm
resistor's value. Either that, or, if you have a set that's
not quite matched, put the "hotter" tube in the 18 ohm
resistor's socket.

73,

Steve Wedge, W1ES/4

The cathode resistors in both my TR-4 and T4XB were of
the two types I mentioned. The smooth ones were very close,
the seamed ones were very far off, I think one was 30 ohms.
Anyway, I dumped them all. If you know the screen current
you can calculate the drop through the resistors. In any
case modern resistors are very cheap so there is no reason
to hang on to the old ones.
Remember that while many resistance measuring
instruments may not be too accurate for absolute value they
can still be used to match within very close tollerances.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18680. Re: [DrakeRadio] Curious

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 04:46:38 UTC
From: VE3AX/7
Topic: 18668 Message: 18680

Ahhhhh, but with that wonderful VRTO built right in!

Geoff:

I think there was an R-4245/TR-4310 set that came out of the the British Isles a few years ago on E-pay. Seems to me I saw a post somewhere where somebody commented how ridiculous it was someone would pay $3000 for a what was perceived as a rack mount TR-7 and R-7 combo. Hoo boy – I would have! Hence the reason I am using a fake 4245 with my 4310! It's not a bad compromise though and is fully reversible should the need arise. I have it tagged on the back as a fake along with the location of the original front panel and knobs in case I drop dead someday!

Checking Sindre's site today, I see he is still looking for an R-77 and MN-77 but there is no TR-77 listed there as a want, so maybe he did find one, although the many pics he has on his site do not show a TR-77 per the sales brochures, but there are certainly a few TR-4310/R-4245 combos there. I have hosted Sindre at my home when I was in Ontario and we had many a good chat about the "rare ones". At that time he did not have an L-77 amp but e-mailed me years later with pics of the one he managed to snag out of France, I believe – no doubt one of the 6 Monaco station amps. I have attempted to find one myself but to no avail. With retirement looming, I am trying to throttle back to the rigs I like the best instead of leaving a Drake museum for my wife to dispose of.

Hey Sindre...you reading all this????

73

Peter
VE3AX/7

From: geoffrey mendelson
Sent: Sunday, February 16, 2014 8:25 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Curious

On 2/16/2014 11:11 PM, VE3AX/7 wrote:

Dan:

I can't answer if there ever was a real TR-77 - Sindre would be able to answer that one, but I can say the later production model TR-4310 is real. I have one paired with a "homebrew" R-4245 (R-4245 panel on an RR-3) and an MN-4438 tuner. Makes a really nice 100 w station with RV-75-like stability. It is not as convenient to use as a ham rig though, as the start-up frequencies for the band segments are outside the ham bands. I'm just partial to the Drake commercial rack mount gear.

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Sorry to dissapoint, but to amend my previous posting, this may have been what he was selling. All I remembered is that its was white rackmount TR-7.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18681. Re: [DrakeRadio] For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 14:38:56 UTC
From: <w7boz@...>
Topic: 18622 Message: 18681

Group,

The condition of the radio and everything else is in great condition. I have and can send multiple photos. And will answer any questions. The only reason I am selling is because I don't have a Ham Shack anymore. I was hoping to keep it until I do. I also have a mechanic to pay off. I do not want to sell on Ebay or other sites. I want someone that really wants a nice Drake station. So please feel free to ask for any photos or ask questions. I am open to reasonable offers.

Thanks, Kevin
W7BOZ

18682. DRAKE TR-4310 MANUALS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 19:06:33 UTC
From: Bruno Ortega
Topic: 18682 Message: 18682

Hi to the Group!
Can anybody please give me a hint where to find the operating and service manuals for the DRAKE TR-4310 trasceiver? Either original manuals, copy or a pdf would be nice. No problem with payment for them.
Thanks for your help.
vy 73 Bruno EA7FEB

Este mensaje no contiene virus ni malware porque la protección de avast! Antivirus está activa.
http://www.avast.com

18683. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 22:40:21 UTC
From: Steve VK2SJA
Topic: 18076 Message: 18683

Thank-you Richard, Garey, Steve and to all who replied.

All understood now. Confident that I can now calibrate meter and set BIAS correctly.

Rig is coming along nicely. Just hope that she wants to "fly" when we get to "Smoke-test II". Smoke-test 1 wasn't too successful. No smoke but no audio either and a 3A@110 AC volt fuse blew after a minute or so. Finals cage quite warm to touch. So the rig had gone into TX unexpectedly. Still not sure if this was a fault or operator error. Quite possibly the later.

73, Steve

>
> ----- Original Message -----
> From: "Steve Wedge" <w1es1982@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Sunday, February 16, 2014 7:24 PM
> Subject: Re: [DrakeRadio] TR-4C screen grid resistors?
>
>
> I tend to agree that screen resistors are less critical.
> However, if I measured any and they were out of tolerance,
> I'd change them.
>
> Since we seek matched PA tubes to keep one from doing
> substantially more work than the other[s] we do need to keep
> an eye on the cathode resistors and the plate parasitic
> suppressors - but especially the cathode resistors. They're
> only 15 ohms and are in series with the flow of plate
> current. It isn't as much if they're 15, or 18 or 13 ohms,
> than that they all be the same value within a couple
> percent. If you have one that's 15 and the other is 18
> ohms, they're different by 20% based on the 15 ohm
> resistor's value. Either that, or, if you have a set that's
> not quite matched, put the "hotter" tube in the 18 ohm
> resistor's socket.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> The cathode resistors in both my TR-4 and T4XB were of
> the two types I mentioned. The smooth ones were very close,
> the seamed ones were very far off, I think one was 30 ohms.
> Anyway, I dumped them all. If you know the screen current

> you can calculate the drop through the resistors. In any
> case modern resistors are very cheap so there is no reason
> to hang on to the old ones.
> Remember that while many resistance measuring
> instruments may not be too accurate for absolute value they
> can still be used to match within very close tollerances.
>
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>

18684. T-4X driver.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-17 23:32:56 UTC
From: Steve Wedge
Topic: 18684 Message: 18684

I've got a T-4X that apparently ate its 12BY7 when the insulated line going through the RF deck to the neutralising cap C48/49 shorted to the chassis. It burned up R26, which I've replaced. T7 still has continuity. There's evidence of the 12BY7 overheating: discoloration of T6's can nearby from excessive heat. I replaced the 12BY7 and though the voltages look better, I'm still not convinced. About 250V on the plate, 190V on the screen and 7V on the cathode. Grids are at chassis potential.

What is that small cylindrical component coming from the plate (pin 7)? I always thought these were inductors but there's no continuity. Are they caps, as I suspect? This one is BRN-BLK-WHT-SIL from what I can see. I'm interpreting this as 10 with a 9 multiplier. Any input here?

TNX es 73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18685. Re: [DrakeRadio] T-4X driver.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 01:11:01 UTC
From: Bob Loving
Topic: 18684 Message: 18685

Hi, Steve:

The cylindrical object you see is most likely a capacitor. The ones I've seen are usually temp comp types but don't have to be. A chart in an old Allied Electronics Data Handbook suggests the color code will be a 1.0pf capacitor (Brn-Blk-Wht, Wht being a multiplier of 0.1) . The chart does not show the Sil band but I'd guess it might mean +/- 0.1pF (10%).

My T-4X manual shows a 1.5pF cap (C33) from the plate of the 12BY7 to C31, a 500pF "bypass" on the low end of the V3 output tuned circuits. The two caps are a fixed value neutralizing circuit similar to the tunable neutralizing used for the final amplifier. I haven't looked at my T-4X but a change in value may have occurred over the years. There is a chance the Blk band you see is a Grn that changed due to years of heat exposure.

Bob K9JU

>_____
> From: Steve Wedge <w1es1982@....com>
>To: DrakeRadio@yahoogroups.com
>Sent: Monday, February 17, 2014 5:32 PM
>Subject: [DrakeRadio] T-4X driver.
>
>
>
>
>I've got a T-4X that apparently ate its 12BY7 when the
insulated line going through the RF deck to the neutralising cap C48/49 shorted
to the chassis. It burned up R26, which I've replaced. T7 still has
continuity. There's evidence of the 12BY7 overheating: discoloration of
T6's can nearby from excessive heat. I replaced the 12BY7 and though
the voltages look better, I'm still not convinced. About 250V on the
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>
>TNX es 73,
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>
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>

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pearls of wisdom appended thereto.
>
>
>
>

18686. Re: [DrakeRadio] T-4X driver.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:01:50 UTC
From: Steve Wedge
Topic: 18684 Message: 18686

Thanks, Bob. I always thought those were inductors, so I was surprised when I found out it wasn't.

Still trying to figure out what's not working in this one. I suspect if I put a scope on the grid that it will overload the circuit and I won't see anything. Will check it tomorrow.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Feb 17, 2014, at 8:11 PM, Bob Loving <bob.loving@...> wrote:
>
> Hi, Steve:
>
> The cylindrical object you see is most likely a capacitor. The ones I've seen are usually temp comp types but don't have to be. A chart in an old Allied Electronics Data Handbook suggests the color code will be a 1.0pf capacitor (Brn-Blk-Wht, Wht being a multiplier of 0.1) . The chart does not show the Sil band but I'd guess it might mean +/- 0.1pF (10%).
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> Bob K9JU
>
>
> From: Steve Wedge <w1es1982@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, February 17, 2014 5:32 PM
> Subject: [DrakeRadio] T-4X driver.
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18687. When you can't set the bias to .1 ampere on a TR-4c, you...?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:02:14 UTC
From: <resluder@...>
Topic: 18687 Message: 18687

Hello gang,

A silent reader from time-to-time, and long-time lover of most things R.L. Drake here. I decided to dive into a TR-4c that I took ownership of back in late 2012. I turned it on with the appropriate controls placed in the correct position, and attempted to set the bias. I couldn't get it to move no matter how much I turned the bias pot on theAC-4. It stayed at .05 ampere.

I suspect I need to rebuild the AC-4 first - then see if I can get the bias adjusted, but would like to confirm that with you smart folk who know these radios backwards and forwards.

I've got Garey's CD so that'll help a lot as I progress through trying to bring the radio to life. I did hear some receiver noise for a bit, then it went away. I'll do the usual and test tubes, caps, etc. but want to be able to let the radio run w/o toasting those nice looking RCA's sitting under the final cage due to no bias voltage getting to them.

Thanks in advance,
Eric
W9WLW

18688. Re: [DrakeRadio] When you can't set the bias to .1 ampere on a TR-4c, you...?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:11:47 UTC
From: Don Cunningham
Topic: 18687 Message: 18688

Eric,
If the AC4 hasn't been rebuilt, you are playing "Russian Roulette" until you do with those finals. I would rebuild it first before doing any more checking at all. Look on Harbach's site at the ES4AC4 rebuild "kit" that is built and pre-tested. All you have to do is take out old components and install it, and you are good to go for another 30 or 40 years. Then Hayseed Hamfest sells a re-cap kit that will replace all the electrolytics in the TR4C itself. No financial interest in either business, but a happy customer of both. Just my opinion and what I would do.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7102 - Release Date: 02/17/14

18689. Re: [DrakeRadio] T-4X driver.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:31:12 UTC
From: Garey Barrell
Topic: 18684 Message: 18689

Steve -

A short to ground there would have just taken out R26, no problem for the 12BY7.

The 7 V on the Cathode means that the tube is drawing twice it's expected current, should be 3.5 V. Might be a leaky C32?

You may be seeing the 'collateral damage' from a shorted bypass cap on the Cathode or some other fault that turned the
tube on hard. Another popular failure here is a trimmer cap shorting to the chassis from application of a metal
screwdriver through those little holes. Shorts the +260 to ground through poor R26. Doesn't take long to smoke things.

That cap off the Plate lead is what I call a 'drum' cap. There's a bunch of the on the BAND switch, between wafers.
They're typically very low value caps, I suspect silver mica. Very reliable. That one is part of the neutralization
circuit for the Driver stage.

Is that a new 12BY7?? Your excess Cathode current may just be a gassy tube. Not even all "NOS" tubes are clean!

Sorry for the stream of consciousness, it's past my bedtime!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
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> interpreting this as 10 with a 9 multiplier. Any input here?
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18690. Re: [DrakeRadio] TR-4C screen grid resistors?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:33:25 UTC
From: Garey Barrell
Topic: 18076 Message: 18690

Steve -

Turn the BIAS all the way negative to start, then reduce it to bring up the IDLE current. Excess plate current is very
damaging to the PA tubes!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Thank-you Richard, Garey, Steve and to all who replied.
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> correctly.
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> Rig is coming along nicely. Just hope that she wants to "fly" when we get
> to "Smoke-test II". Smoke-test 1 wasn't too successful. No smoke but no
> audio either and a 3A@110 AC volt fuse blew after a minute or so. Finals
> cage quite warm to touch. So the rig had gone into TX unexpectedly. Still
> not sure if this was a fault or operator error. Quite possibly the later.
>
> 73, Steve
>
>
>
>> ----- Original Message -----
>> From: "Steve Wedge" <w1es1982@...>
>> To: <DrakeRadio@yahoogroups.com>
>> Sent: Sunday, February 16, 2014 7:24 PM
>> Subject: Re: [DrakeRadio] TR-4C screen grid resistors?
>>
>>
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>> resistor's value. Either that, or, if you have a set that's
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>> to hang on to the old ones.
>> Remember that while many resistance measuring
>> instruments may not be too accurate for absolute value they
>> can still be used to match within very close tollerances.
>>
>>

18691. Re: [DrakeRadio] When you can't set the bias to .1 ampere on a TR-4c, you...?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 02:56:05 UTC
From: <resluder@...>
Topic: 18687 Message: 18691

Don:
Thank you for the quick reply. I have a re-build kit and will start in shortly on rebuilding the power supply. I wanted to make sure I wasn't missing something obvious on the bias setup is all. I will probably sell this TR-4c once it's running to keep the XYL happy unless I fall so deeply in love it that I can talk her out of me selling it. I'm more of a B-Line guy, and bought this TR-4c on a whim once.
73 - Eric
W9WLW

18692. Re: [DrakeRadio] When you can't set the bias to .1 ampere on a TR-4c, you...?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 03:06:12 UTC
From: Steve Wedge
Topic: 18687 Message: 18692

Check the voltage at the grids of the finals. They're easy to find, as they're the pins with the wide strap connecting them. If the voltage is around -60V, then you may have dead finals. I've already tossed a pair of finals this week after assuming my problem was something else (something cheaper...) and it really turned out to be totally dead finals. Nearly identical symptoms, except I could get NO idle current whatsoever.

You will want to rebuild the power supply anyway, but checking the grid voltage is a quick check to see that you actually have bias.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Don Cunningham
Sent: Monday, February 17, 2014 9:11 PM
To: DrakeRadio@...m
Subject: Re: [DrakeRadio] When you can't set the bias to .1 ampere on a TR-4c, you...?

☐

Eric,
If the AC4 hasn't been rebuilt, you are playing "Russian Roulette" until you do with those finals. I would rebuild it first before doing any more checking at all. Look on Harbach's site at the ES4AC4 rebuild "kit" that is built and pre-tested. All you have to do is take out old components and install it, and you are good to go for another 30 or 40 years. Then Hayseed Hamfest sells a re-cap kit that will replace all the electrolytics in the TR4C itself. No financial interest in either business, but a happy customer of both. Just my opinion and what I would do.
73,
Don, WB5HAK
No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7102 - Release Date: 02/17/14

18693. Re: [DrakeRadio] T-4X driver.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 03:10:20 UTC
From: Steve Wedge
Topic: 18684 Message: 18693

No worries, Garey, I'm enjoying it.

The 12BY7 that was originally in the rig was really conducting hard - the plate voltage was down to 140V. I'm suspecting the short may have stressed multiple parts. You can really feel heat and smell the heat over the area of the driver. Guess it's time to change some caps. BTW, cathode resistor is within tolerance.

Manana...

Steve Wedge, W1ES/4

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From: Garey Barrell
Sent: Monday, February 17, 2014 9:31 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4X driver.

Steve -

A short to ground there would have just taken out R26, no problem for the 12BY7.

The 7 V on the Cathode means that the tube is drawing twice it's expected current, should be 3.5 V. Might be a leaky C32?

You may be seeing the 'collateral damage' from a shorted bypass cap on the Cathode or some other fault that turned the
tube on hard. Another popular failure here is a trimmer cap shorting to the chassis from application of a metal
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They're typically very low value caps, I suspect silver mica. Very reliable. That one is part of the neutralization
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Is that a new 12BY7?? Your excess Cathode current may just be a gassy tube. Not even all "NOS" tubes are clean!

Sorry for the stream of consciousness, it's past my bedtime!

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Glen Allen, VA

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Steve Wedge wrote:
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> interpreting this as 10 with a 9 multiplier. Any input here?
>

18694. Re: [DrakeRadio] When you can't set the bias to .1 ampere on a TR-4c, you...?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 14:14:53 UTC
From: <resluder@...>
Topic: 18687 Message: 18694

Thanks for the input Steve. I sure hope they're not dead, or it'll make reselling it a difficult thing to do considering the investments required to get it back on the air. It may become a boat anchor that is a standby SSB rig for me.

73 - Eric
W9WLW

18695. Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 16:59:28 UTC
From: Steve Toth
Topic: 18695 Message: 18695

I'm mounting a small 12v computer fan on the top of the finals cage of my T4XB to blow air out of the xmtr.

I want the install to look clean and professional. Where is the best place to pick off 6v to run it at half speed? Should I plan on mounting a small terminal strip inside the chassis with a rectifier and cap for conversion from AC to DC?

Is it worth it to do the same with an R4C? Same questions and where would you mount the fan on the rcvr?.

Thanks!

-- Steve

"Technically.....the glass is ALWAYS full."

18696. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 17:08:49 UTC
From: Joe - W7RKN
Topic: 18695 Message: 18696

For the life of me, I can't understand why you would want to remove the ability to fry up breakfast, or keep your coffee hot, while having your morning conversation.

Joe W7RKN

----- Original Message -----
From: "Steve Toth" <stoth47@...>
Subject: [DrakeRadio] Easy questions on cooling fans

> I'm mounting a small 12v computer fan on the top of the finals cage of my
> T4XB to blow air out of the xmtr.

18697. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 17:16:52 UTC
From: Richard Knoppow
Topic: 18695 Message: 18697

----- Original Message -----
From: "Steve Toth" <stoth47@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, February 18, 2014 8:59 AM
Subject: [DrakeRadio] Easy questions on cooling fans

> I'm mounting a small 12v computer fan on the top of the
> finals cage of my T4XB to blow air out of the xmtr.
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> Should I plan on mounting a small terminal strip inside
> the chassis with a rectifier and cap for conversion from
> AC to DC?
>
> Is it worth it to do the same with an R4C? Same questions
> and where would you mount the fan on the rcvr?.
>
> Thanks!
>
>
> -- Steve
>

I have a 220V fan connected to 120, it runs fast enough to cool the TX but doesn't make any noise. I would be reluctant to power anything external from the TX because I don't know if the power supply has the reserve. I just sit my blower on top of the cage with the finals. I put self-adhesive foam weather stripping around the edges of the fan. This acts as isolation for vibration (there isn't much anyway) and maybe increases the air flow a little. I also put protective screens on both sides of the blower.
The transformer in my R4B gets quite hot. If I put a blower like the above over it it stays cool to the touch. I think a very small blower would do the job. I don't know if its really necessary but I was brought up on the theory that equipment lasts longest when kept cool.
I got my blowers from All Electronics, they have a web site, but are not too long a drive from here so I just walked in and bought a couple of blowers that were on sale. I started with a 115VAC blower but could hear it even though my hearing is no long very good so I changed to the HV blower running at half-voltage. It works like a charm. I got the protective screens when I got the blowers. The weather stripping came from a local hardware store. I put

cord switches in the lines to the blowers.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18698. Drake 2-C : 6BZ6 RF tube

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:25:20 UTC
From: <gbeat5@...>
Topic: 18698 Message: 18698

My Drake 2-C, s/n: 20xx, has silk-screen on chassis for the RF am tube: 6BZ6 When did Drake change that, from the earlier 12BZ6 specification? Greg, w9gb

18699. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:31:29 UTC
From: <w1es1982@...>
Topic: 18695 Message: 18699

For these little fans, there's ample power in the filament supply. Just make a half-wave rectified supply with about 100 uf capacitance and run the fan off that. If you tap off at 6.3V, you should have more than enough to turn a 12V fan at low speed - which is more than enough.

Richard's comment reminded me that I keep both my T-4XB and R-4B cool at the same time with one fan. My T-4XB sits on the right, with the MS-4/AC-4 to the left of it and the R-4B on top of the MS-4. The airflow from the final cage passes the right side of the R-4B, thus also keeping that normally hot side of the R-4B cool, as well.

73,

Steve, W1ES/4

---- Richard Knoppow <1oldlens1@...> wrote:
>
> ----- Original Message -----
> From: "Steve Toth" <stoth47@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, February 18, 2014 8:59 AM
> Subject: [DrakeRadio] Easy questions on cooling fans
>
>
> > I'm mounting a small 12v computer fan on the top of the
> > finals cage of my T4XB to blow air out of the xmtr.
> >
> > I want the install to look clean and professional. Where
> > is the best place to pick off 6v to run it at half speed?
> > Should I plan on mounting a small terminal strip inside
> > the chassis with a rectifier and cap for conversion from
> > AC to DC?
> >
> > Is it worth it to do the same with an R4C? Same questions
> > and where would you mount the fan on the rcvr?.
> >
> > Thanks!
> >
> >
> > -- Steve
> >
> I have a 220V fan connected to 120, it runs fast enough
> to cool the TX but doesn't make any noise. I would be
> reluctant to power anything external from the TX because I
> don't know if the power supply has the reserve. I just sit
> my blower on top of the cage with the finals. I put
> self-adhesive foam weather stripping around the edges of the

> fan. This acts as isolation for vibration (there isn't much
> anyway) and maybe increases the air flow a little. I also
> put protective screens on both sides of the blower.
> The transformer in my R4B gets quite hot. If I put a
> blower like the above over it it stays cool to the touch. I
> think a very small blower would do the job. I don't know if
> its really necessary but I was brought up on the theory that
> equipment lasts longest when kept cool.
> I got my blowers from All Electronics, they have a web
> site, but are not too long a drive from here so I just
> walked in and bought a couple of blowers that were on sale.
> I started with a 115VAC blower but could hear it even though
> my hearing is no long very good so I changed to the HV
> blower running at half-voltage. It works like a charm. I
> got the protective screens when I got the blowers. The
> weather stripping came from a local hardware store. I put
> cord switches in the lines to the blowers.
>
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>

18700. Re: [DrakeRadio] Drake 2-C : 6BZ6 RF tube

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:44:39 UTC
From: Garey Barrell
Topic: 18698 Message: 18700

Greg -

I don't know when it changed, apparently AFTER the last schematic at s/n 1000. I corrected it in my updated version of
the schematic for my CD, along with several other 'undocumented' changes. This has happened on other products; circuit
changes made late in production but never documented publicly. The 2-NT had several also.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

gbeat5@... wrote:
>
>
> My Drake 2-C, s/n: 20xx, has silk-screen on chassis for the RF am tube: 6BZ6 When did Drake change that, from the
> earlier 12BZ6 specification? Greg, w9gb
>
>

18701. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:41:34 UTC
From: Steve Toth
Topic: 18695 Message: 18701

The wife does that for me (I do my homework when I'm not mucking about with radios, computers, cars......)

-- Steve

"Technically........the glass is ALWAYS full."

On Tue, 2/18/14, Joe - W7RKN <w7rkn.7@...> wrote:

Subject: Re: [DrakeRadio] Easy questions on cooling fans
To: DrakeRadio@yahoogroups.com
Date: Tuesday, February 18, 2014, 9:08 AM

For the life of me, I can't
understand why you would want to remove the
ability to fry up breakfast, or keep your coffee hot, while
having your
morning conversation.

Joe W7RKN

----- Original Message -----
From: "Steve Toth" <stoth47@...>
Subject: [DrakeRadio] Easy questions on cooling fans

> I'm mounting a small 12v computer fan on the top of the
finals cage of my
> T4XB to blow air out of the xmtr.

Yahoo Groups Links

    DrakeRadio-fullfeatured@yahoogroups.com

18702. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:51:50 UTC
From: Steve Toth
Topic: 18695 Message: 18702

I was using a 5 inch 115v blower mounted on rubber feet on top of both the T4XB and the R4C - sounded like the shack was a radio compartment in an aircraft.

If I had a 220vac fan I would use it. What I have laying around is a few of the 12v fans from old computer power supplies, the mounting holes of which match the perf pattern on the metal screening of the twins. So those are the candidates. I also have a bunch of larger 12v fans from cooling racks in computer equipment cabs that I plan on using in a cab that has a bunch of tube type receivers mounted in it.

-- Steve

"Technically.....the glass is ALWAYS full."

On Tue, 2/18/14, Richard Knoppow <1oldlens1@...> wrote:

Subject: Re: [DrakeRadio] Easy questions on cooling fans
To: DrakeRadio@yahoogroups.com
Date: Tuesday, February 18, 2014, 9:16 AM

----- Original Message -----
From: "Steve Toth" <stoth47@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, February 18, 2014 8:59 AM
Subject: [DrakeRadio] Easy questions on cooling fans

> I'm mounting a small 12v computer fan on the top of the

> finals cage of my T4XB to blow air out of the xmtr.
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professional. Where
> is the best place to pick off 6v to run it at
half speed?
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> the chassis with a rectifier and cap for conversion
from
> AC to DC?
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> Is it worth it to do the same with an R4C? Same
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> and where would you mount the fan on the rcvr?.
>
> Thanks!
>
>

> -- Steve
>
     I have a 220V fan connected to 120,
it runs fast enough
to cool the TX but doesn't make any noise. I would be
reluctant to power anything external from the TX because I
don't know if the power supply has the reserve. I just
sit
my blower on top of the cage with the finals. I put
self-adhesive foam weather stripping around the edges of the

fan. This acts as isolation for vibration (there isn't much

anyway) and maybe increases the air flow a little. I also
put protective screens on both sides of the blower.
     The transformer in my R4B gets
quite hot. If I put a
blower like the above over it it stays cool to the touch. I

think a very small blower would do the job. I don't know if

its really necessary but I was brought up on the theory that

equipment lasts longest when kept cool.
     I got my blowers from All
Electronics, they have a web
site, but are not too long a drive from here so I just
walked in and bought a couple of blowers that were on sale.

I started with a 115VAC blower but could hear it even though

my hearing is no long very good so I changed to the HV
blower running at half-voltage. It works like a charm.
I
got the protective screens when I got the blowers. The
weather stripping came from a local hardware store. I put
cord switches in the lines to the blowers.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@....com

Yahoo Groups Links

    DrakeRadio-fullfeatured@yahoogroups.com

18703. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:58:42 UTC
From: Garey Barrell
Topic: 18695 Message: 18703

Richard -

The AC-4 has plenty of filament power left over when running a T-4X(any). It's designed to run the TR-4(any) with 5.5A,
and as the T-4X(any) needs only 3A there is plenty of room left to drive several fans!

The choice can be one of availability. Fans are very expensive if you buy them 'new', but are practically given away at
hamfests and surplus stores. Fans designed for 'odd' voltages are usually a real bargain!

Most any fan running at half it's rated voltage, provides more than enough air.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> ----- Original Message -----
> From: "Steve Toth" <stoth47@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, February 18, 2014 8:59 AM
> Subject: [DrakeRadio] Easy questions on cooling fans
>
>
>> I'm mounting a small 12v computer fan on the top of the
>> finals cage of my T4XB to blow air out of the xmtr.
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>> is the best place to pick off 6v to run it at half speed?
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>> the chassis with a rectifier and cap for conversion from
>> AC to DC?
>>
>> Is it worth it to do the same with an R4C? Same questions
>> and where would you mount the fan on the rcvr?.
>>
>> Thanks!
>>
>>
>> -- Steve
>>
> I have a 220V fan connected to 120, it runs fast enough
> to cool the TX but doesn't make any noise. I would be

> reluctant to power anything external from the TX because I
> don't know if the power supply has the reserve. I just sit
> my blower on top of the cage with the finals. I put
> self-adhesive foam weather stripping around the edges of the
> fan. This acts as isolation for vibration (there isn't much
> anyway) and maybe increases the air flow a little. I also
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> blower like the above over it it stays cool to the touch. I
> think a very small blower would do the job. I don't know if
> its really necessary but I was brought up on the theory that
> equipment lasts longest when kept cool.
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> site, but are not too long a drive from here so I just
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> I started with a 115VAC blower but could hear it even though
> my hearing is no long very good so I changed to the HV
> blower running at half-voltage. It works like a charm. I
> got the protective screens when I got the blowers. The
> weather stripping came from a local hardware store. I put
> cord switches in the lines to the blowers.
>

18704. easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 18:59:28 UTC
From: Steve Toth
Topic: 18704 Message: 18704

I just re-read my replies and they sounded kind of terse - sorry guys, not intentional, poor wording.

The replies are very much appreciated. Not enough coffee yet....

-- Steve

"Technically.....the glass is ALWAYS full."

18705. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 19:27:52 UTC
From: Richard Knoppow
Topic: 18695 Message: 18705

----- Original Message -----
From: <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Cc: "Richard Knoppow" <1oldlens1@...>
Sent: Tuesday, February 18, 2014 10:31 AM
Subject: Re: [DrakeRadio] Easy questions on cooling fans

> For these little fans, there's ample power in the filament
> supply. Just make a half-wave rectified supply with about
> 100 uf capacitance and run the fan off that. If you tap
> off at 6.3V, you should have more than enough to turn a
> 12V fan at low speed - which is more than enough.
>
> Richard's comment reminded me that I keep both my T-4XB
> and R-4B cool at the same time with one fan. My T-4XB
> sits on the right, with the MS-4/AC-4 to the left of it
> and the R-4B on top of the MS-4. The airflow from the
> final cage passes the right side of the R-4B, thus also
> keeping that normally hot side of the R-4B cool, as well.
>
> 73,
>
> Steve, W1ES/4
>
I have the same arrangement. The 115V fan I used at
first would cool the receiver too but the 220V fan running
on half voltage doesn't move quite enough air. The original
fan was just a little too noisy.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18706. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 19:52:58 UTC
From: Bob Loving
Topic: 18695 Message: 18706

Steve, one of my T-4XC transmitters came with a 12Vdc fan tie wrapped to the back of the PA cage.The supply was the 12.6Vac filament voltage rectified with a 1N4000-series diode. No capacitor! The fan seems to run in the half speed range and is quiet. Cooling appears to be adequate.

73,

Bob K9JU

>_____
> From: Steve Toth <stoth47@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Tuesday, February 18, 2014 4:59 PM
>Subject: [DrakeRadio] Easy questions on cooling fans
>
>
>
>
>I'm mounting a small 12v computer fan on the top of the finals cage of my T4XB to blow air out of the xmtr.
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>Is it worth it to do the same with an R4C? Same questions and where would you mount the fan on the rcvr?.
>
>Thanks!
>
>-- Steve
>
>"Technically.....the glass is ALWAYS full."
>
>
>
>

18707. Re: [DrakeRadio] easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 20:08:54 UTC
From: wes bolin
Topic: 18704 Message: 18707

I have done the same thing so I can't throw any stones at anyone else,
Steve.

My technique was to get a 220vac muffin fan and run it on 120vac. Just set
it on top of the cabinet. I use one with my SP600 receiver
to draw air out of the cabinet for better cooling. Works and is
inexpensive and no DC brushes in the motor.

Wes

On Tue, Feb 18, 2014 at 12:59 PM, Steve Toth <stoth47@...> wrote:

> I just re-read my replies and they sounded kind of terse - sorry guys, not
> intentional, poor wording.
>
> The replies are very much appreciated. Not enough coffee yet....
>
> -- Steve
>
> "Technically.....the glass is ALWAYS full."
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

18708. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 20:22:35 UTC
From: Don Cunningham
Topic: 18695 Message: 18708

Steve,
If you already have the 5" fans running on 115V on both the receiver and transmitter, try wiring them in series if the rigs are close together. I did that for years, and the particular fans I had would run slowly and not sound like a 747 in the shack. Especially if you already have them and they are essentially "free". Just a thought, but as others say, the power supplies will support the DC fans as well.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7103 - Release Date: 02/18/14

18709. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 20:40:40 UTC
From: <mgilger@...>
Topic: 18695 Message: 18709

Steve,
I have an article on Ron's web page showing how to do just what your asking. Please, don't drill any holes if your going to mount the fan on the top cover. That will destroy it's resale value.

http://wb4hfn.com/DRAKE/DrakeArticles/TechTips/TransmitterFan.htm
http://wb4hfn.com/DRAKE/DrakeArticles/TechTips/TransmitterFan.htm

73's,
Mark, WB0IQK

18710. Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 22:25:08 UTC
From: Steve Toth
Topic: 18695 Message: 18710

I had not thought about running two fans in series (Homer Simpson moment here) - good idea!

And thanks for the article link to the WB4HFN website - my only concern would be not using a terminal strip to mount the diode and cap; but other than that, great info. I'll have to check out that site.

-- Steve

"Technically.....the glass is ALWAYS full."

18711. Re: Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-18 23:54:48 UTC
From: James Scribner
Topic: 18695 Message: 18711

A lot of good info already on cooling the transmitters and/or receivers. How about the power supply? Seems AC-4 would be pretty hot inside original case and then in a MS-4 to boot. Any thoughts or comments on this or am I being a worry wart?

18712. Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 00:21:15 UTC
From: <adams@...>
Topic: 18712 Message: 18712

Hi All

Yesterday at about 4pm local time I had just replaced the main filter caps and the other few electrolytic caps Powered it up to hear all was working well.
I tuned in 28.495MHz there was traffic, North America and Japan, it was no S meter signal and was a little hard to make out in the deep fades but was still readable 90% of the time.
Wanting to listen to the full conversation I powered up my modern receivers, JRC NRD-535D , Icom IC-R9000 and Tentec RX-340. These receivers are properly working and the RX-340 is a standards calibrated receiver.
I tried a lot of different combinations using a long wire , then a naturally resonate vertical antenna.
Basically it came down to the following.
My OLD Drake R-4A that uses valves received the 28.495 MHz stations when the other receivers had nothing there.
I could not beleive it myself, this $350 radio, that is over 45 years old works better that my most expensive and most modern receivers.
It was a really nice supprise.
It just shows you that good engineering based on stable physics will last the lenght of time. And of course when it is well built.

I am located about 150Kms west of Sydney In Australia.

Here is a question.
I run 240V at 50Hz, after about 45 minutes the power transformer gets VERY hot.
Does this happen with you guys running it at 110V 60Hz?

Regards To all
John
VK2XCQ

18713. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 00:29:20 UTC
From: K5MYJ
Topic: 18712 Message: 18713

I have a R-4A that I have never touched since buying it probably 6 years ago. I also have a SB-301 and TS-520.

The R-4A can hear things the others cannot.

I've got more but the are not worth discussing.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: adams@...
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, February 18, 2014 4:21 PM
Subject: [DrakeRadio] Drake R-4A vs a few modern receivers

Hi All

Yesterday at about 4pm local time I had just replaced the main filter caps and the other few electrolytic caps Powered it up to hear all was working well.

I tuned in 28.495MHz there was traffic, North America and Japan, it was no S meter signal and was a little hard to make out in the deep fades but was still readable 90% of the time. Wanting to listen to the full conversation I powered up my modern receivers, JRC NRD-535D , Icom IC-R9000 and Tentec RX-340. These receivers are properly working and the RX-340 is a standards calibrated receiver.
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Here is a question.
I run 240V at 50Hz, after about 45 minutes the power transformer gets VERY hot.
Does this happen with you guys running it at 110V 60Hz?

Regards To all
John
VK2XCQ

18714. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 01:29:38 UTC
From: Jim Lowman
Topic: 18712 Message: 18714

That's music to my ears, John!

I have an R-4C with the Sherwood mods, so it should do at least that well.

Drake, Collins and other manufacturers of that era obviously designed
and built their equipment to be used for the long run, not until the
next-newest model is introduced.

Here's where the R-4C places among the best of today:

http://www.sherweng.com/table.html

With a noise floor of -138 dBm, it's not shabby at all on receive!

73 de Jim - AD6CW

On 2/18/2014 4:21 PM, adams@... wrote:
>
>
> Hi All
>
> Yesterday at about 4pm local time I had just replaced the main filter
> caps and the other few electrolytic caps Powered it up to hear all was
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>
>

>
>
>

18715. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 01:42:57 UTC
From: Steve Toth
Topic: 18712 Message: 18715

That's interesting. I have my R4C, a couple of R390A's (1952 and 1967), an R388/51J3 and an Icom R70 - The R4C and Icom are about the same vintage, all older gear. The R4C (with GUF-1 and 2.1kc SSB filters), the R390A's and the R70 have all been gone through , the R388 has not been (yet). I have a long wire on a six way switch, so I can compare receiver reception. All five will hear the same signal. The R390A's seem , to my ears, to provide the best readability on weaker signals, but only by a slight margin over the R4C - it could be the difference between the 8" Hallicrafters cab'd speaker on the R390A's as opposed to the R4C speaker in the MS-4. It is not enough to prefer one over the other unless a signal is seriously down in the noise.

The bottom line: the R4C hangs right in there and does a great job.

-- Steve

"Technically.....the glass is ALWAYS full."

On Tue, 2/18/14, K5MYJ <macklinbob@gmail.com> wrote:

Subject: Re: [DrakeRadio] Drake R-4A vs a few modern receivers
To: DrakeRadio@yahoogroups.com
Date: Tuesday, February 18, 2014, 4:29 PM

☐

I have a R-4A that I have never touched
since buying it
probably 6 years ago. I also have a SB-301 and
TS-520.

The R-4A can hear things the others
cannot.

I've got more but the are not worth
discussing.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In
The Dark"

----- Original Message -----

From:
adams@....au

To: DrakeRadio@yahoogroups.com

Sent: Tuesday,
February 18, 2014 4:21
PM
Subject: [DrakeRadio]
Drake R-4A vs a few
modern receivers

Hi All

Yesterday at about
4pm local time I
had just replaced the main filter caps and the other few
electrolytic caps
Powered it up to hear all was working well.

I tuned in 28.495MHz there was traffic, North America
and Japan, it was
no S meter signal and was a little hard to make out in the
deep fades but was
still readable 90% of the time.
Wanting to listen to the full conversation I powered
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the lenght of time. And of course when it is well
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I am located about 150Kms west of Sydney In
Australia.

Here is a question.
I run 240V at 50Hz, after about 45 minutes the power
transformer gets
VERY hot.
Does this happen with you guys running it at 110V
60Hz?

Regards To all
John
VK2XCQ

18716. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:16:41 UTC
From: Steve Wedge
Topic: 18712 Message: 18716

The power xformer gets hot at 120 @ 60 Hz. I can remember testing power supplies years ago where we tried using xformers at 50 Hz with series primary windings and found that they ran hotter at 50Hz. We wound up getting ones optimised for 50 Hz.

The alternative for you, I think, would be to put another xformer in a buck configuration to lower the input to the primary to 220v. Still not optimised for frequency but at a less-stressful input voltage. You could also use a variac. Alternately, run a small cooling fan near the xformer.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Feb 18, 2014, at 7:21 PM, <adams@liveinter.net.au> wrote:
>
> Hi All
>
>
> Yesterday at about 4pm local time I had just replaced the main filter caps and the other few electrolytic caps Powered it up to hear all was working well.
> I tuned in 28.495MHz there was traffic, North America and Japan, it was no S meter signal and was a little hard to make out in the deep fades but was still readable 90% of the time.
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> My OLD Drake R-4A that uses valves received the 28.495 MHz stations when the other receivers had nothing there.
> I could not beleive it myself, this $350 radio, that is over 45 years old works better that my most expensive and most modern receivers.
> It was a really nice supprise.
> It just shows you that good engineering based on stable physics will last the lenght of time. And of course when it is well built.
>
> I am located about 150Kms west of Sydney In Australia.
>
> Here is a question.
> I run 240V at 50Hz, after about 45 minutes the power transformer gets VERY hot.
> Does this happen with you guys running it at 110V 60Hz?
>
> Regards To all
> John
> VK2XCQ
>

>
>
>
>

18717. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:28:49 UTC
From: Garey Barrell
Topic: 18712 Message: 18717

John -

That is the worst case for the transformer. The higher voltage, combined with the lower frequency are both the least
efficient for the transformer. It IS rated for that, and yes, they definitely get too hot to hold your hand on at 120
VAC, 60 Hz. That said, I've been using and working on these receivers for just about 50 years now and I have yet to see
a transformer fail that was NOT taken out by a combination of a shorted filter cap - AND - an incorrect fuse. If it
would make you feel better a small bucking transformer wouldn't hurt anything, nor would a small silent fan blowing air
across the back of the receiver, just to get the heated air away from the area.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

adams@... wrote:
>
>
> Hi All
>
> Yesterday at about 4pm local time I had just replaced the main filter caps and the other few electrolytic caps Powered
> it up to hear all was working well.
> I tuned in 28.495MHz there was traffic, North America and Japan, it was no S meter signal and was a little hard to
> make out in the deep fades but was still readable 90% of the time.
> Wanting to listen to the full conversation I powered up my modern receivers, JRC NRD-535D , Icom IC-R9000 and Tentec
> RX-340. These receivers are properly working and the RX-340 is a standards calibrated receiver.
> I tried a lot of different combinations using a long wire , then a naturally resonate vertical antenna.
> Basically it came down to the following.
> My OLD Drake R-4A that uses valves received the 28.495 MHz stations when the other receivers had nothing there.
> I could not beleive it myself, this $350 radio, that is over 45 years old works better that my most expensive and most
> modern receivers.
> It was a really nice supprise.
> It just shows you that good engineering based on stable physics will last the lenght of

time. And of course when it is
> well built.
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> I am located about 150Kms west of Sydney In Australia.
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> Here is a question.
> I run 240V at 50Hz, after about 45 minutes the power transformer gets VERY hot.
> Does this happen with you guys running it at 110V 60Hz?
>
> Regards To all
> John
> VK2XCQ
>
>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7103 - Release Date: 02/18/14
>

18718. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:26:33 UTC
From: Charles Ahlgren
Topic: 18712 Message: 18718

What version of the R4A do you have :11 or 13 tube. I have one of the early versions #2550 - Dec 1965.

Typically, the transformer runs hot - at least mine does and I hear it's typical. Some install fans on top of cabinet over transformer to pull air out of cabinet and aid cooling.

I have both Drake A line and C line and a TR4cw RIT and I agree that all 3 receivers are excellent performers. I particularly enjoy listening to my R4C on 75 meter phone utilizing my HyTower vertical.

Cheers, Charles, KW6G.

On Tuesday, February 18, 2014, <adams@...> wrote:

>
>
> Hi All
>
> Yesterday at about 4pm local time I had just replaced the main filter caps
> and the other few electrolytic caps Powered it up to hear all was working
> well.
> I tuned in 28.495MHz there was traffic, North America and Japan, it was no
> S meter signal and was a little hard to make out in the deep fades but was
> still readable 90% of the time.
> Wanting to listen to the full conversation I powered up my modern
> receivers, JRC NRD-535D , Icom IC-R9000 and Tentec RX-340. These receivers
> are properly working and the RX-340 is a standards calibrated receiver.
> I tried a lot of different combinations using a long wire , then a
> naturally resonate vertical antenna.
> Basically it came down to the following.
> My OLD Drake R-4A that uses valves received the 28.495 MHz stations when
> the other receivers had nothing there.
> I could not beleive it myself, this $350 radio, that is over 45 years old
> works better that my most expensive and most modern receivers.
> It was a really nice supprise.
> It just shows you that good engineering based on stable physics will last
> the lenght of time. And of course when it is well built.
>
> I am located about 150Kms west of Sydney In Australia.
>
> Here is a question.
> I run 240V at 50Hz, after about 45 minutes the power transformer gets VERY
> hot.
> Does this happen with you guys running it at 110V 60Hz?
>

> Regards To all
> John
> VK2XCQ
>
>
>
>
>
>

--
73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

18719. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:37:09 UTC
From: Jim Shorney
Topic: 18695 Message: 18719

It should be noted that the larger the fan the slower it needs to turn for the same volume of air. I have two of what I call "biga$$ server fans", 12V brushless DC fans, wired in series running on 12V on top of my L7PS. Can't even hear them running from a couple of feet away.

73

-Jim
NU0C

On Tue, 18 Feb 2014 13:31:29 -0500, w1es1982@... wrote:

>For these little fans, there's ample power in the filament supply. Just make a half-wave rectified supply with about 100 uf capacitance and run the fan off that. If you tap off at 6.3V, you should have more than enough to turn a 12V fan at low speed - which is more than enough.
>
>Richard's comment reminded me that I keep both my T-4XB and R-4B cool at the same time with one fan. My T-4XB sits on the right, with the MS-4/AC-4 to the left of it and the R-4B on top of the MS-4. The airflow from the final cage passes the right side of the R-4B, thus also keeping that normally hot side of the R-4B cool, as well.
>
>73,
>
>Steve, W1ES/4
>
>---- Richard Knoppow <1oldlens1@....com> wrote:
>>
>> ----- Original Message -----
>> From: "Steve Toth" <stoth47@...>
>> To: <DrakeRadio@yahoogroups.com>
>> Sent: Tuesday, February 18, 2014 8:59 AM
>> Subject: [DrakeRadio] Easy questions on cooling fans
>>
>>
>> > I'm mounting a small 12v computer fan on the top of the
>> > finals cage of my T4XB to blow air out of the xmtr.
>> >
>> > I want the install to look clean and professional. Where
>> > is the best place to pick off 6v to run it at half speed?
>> > Should I plan on mounting a small terminal strip inside
>> > the chassis with a rectifier and cap for conversion from
>> > AC to DC?
>> >
>> > Is it worth it to do the same with an R4C? Same questions
>> > and where would you mount the fan on the rcvr?.

>> >
>> > Thanks!
>> >
>> >
>> > -- Steve
>> >
>> I have a 220V fan connected to 120, it runs fast enough
>> to cool the TX but doesn't make any noise. I would be
>> reluctant to power anything external from the TX because I
>> don't know if the power supply has the reserve. I just sit
>> my blower on top of the cage with the finals. I put
>> self-adhesive foam weather stripping around the edges of the
>> fan. This acts as isolation for vibration (there isn't much
>> anyway) and maybe increases the air flow a little. I also
>> put protective screens on both sides of the blower.
>> The transformer in my R4B gets quite hot. If I put a
>> blower like the above over it it stays cool to the touch. I
>> think a very small blower would do the job. I don't know if
>> its really necessary but I was brought up on the theory that
>> equipment lasts longest when kept cool.
>> I got my blowers from All Electronics, they have a web
>> site, but are not too long a drive from here so I just
>> walked in and bought a couple of blowers that were on sale.
>> I started with a 115VAC blower but could hear it even though
>> my hearing is no long very good so I changed to the HV
>> blower running at half-voltage. It works like a charm. I
>> got the protective screens when I got the blowers. The
>> weather stripping came from a local hardware store. I put
>> cord switches in the lines to the blowers.
>>
>>
>> --
>> Richard Knoppow
>> Los Angeles
>> WB6KBL
>> dickburk@...
>>
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18720. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:38:55 UTC
From: Charles Ahlgren
Topic: 18695 Message: 18720

WB4HFN website has a treasure trove of information. Ron cleaned and tuned up my C-line last year. Great service and very reasonable prices. My rig works flawlessly now. Will compete with or beat any of the new mid priced ($4,000) radios of today!

On Tuesday, February 18, 2014, Steve Toth <stoth47@...> wrote:

>
>
> I had not thought about running two fans in series (Homer Simpson moment
> here) - good idea!
>
> And thanks for the article link to the WB4HFN website - my only concern
> would be not using a terminal strip to mount the diode and cap; but other
> than that, great info. I'll have to check out that site.
>
> -- Steve
>
> "Technically........the glass is ALWAYS full."
>
>
>

--
73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

18721. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 02:42:35 UTC
From: Jim Shorney
Topic: 18695 Message: 18721

On Tue, 18 Feb 2014 09:16:52 -0800, Richard Knoppow wrote:

> I don't know if
>its really necessary but I was brought up on the theory that
>equipment lasts longest when kept cool.

That's not a theory, it's a fact. There's even a mathematical equation that expresses it.

For all those "these radios were designed to run without a fan" people the question becomes "why would you NOT want to extend the life of your equimpent?

73

-Jim
NU0C

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18722. Re: [DrakeRadio] Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 05:03:58 UTC
From: <adams@...>
Topic: 18712 Message: 18722

Hi Charles

It is a 13 Valve unit, serial number 2914.

I had a R-4C, for me it was not as good, so I sold it off. It did not sound as nice as the 4A.
The R4A is not as stable as the later models but it is suprisingly sensitive.

I tried the fan but it only added about 10 minutes before the transformer got too hot to touch.
Since DRAKE designed it to work in that temperature range, who am I to change it.
I have considered changing the Transformer to a Torroid type, less heat, more efficiency and smaller size, but it would look totally out of place.
Thank you all for your temperature information.

Regards John
Vk2XCQ

18723. Re: Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 12:57:06 UTC
From: Mark Gilger
Topic: 18712 Message: 18723

You might consider lowering your supply voltage with a variac. When Drake designed all of their radios, the typical line voltage was only 115 volt, in many cases it's now up around 120-125vac. Mine was usually hanging around 123vac.

With the higher line voltage, the filament voltage will also be higher, in some case up around 7 volts. Higher filament voltage = lower tube live and more heat.

73's
Mark WB0IQK

18724. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 14:02:09 UTC
From: Barry
Topic: 18695 Message: 18724

Jim,

I think someone beat you to that name. :)

http://www.bigassfans.com/

Regards,
Barry - N4BUQ

> It should be noted that the larger the fan the slower it needs to
> turn for the
> same volume of air. I have two of what I call "biga$$ server fans",
> 12V
> brushless DC fans, wired in series running on 12V on top of my L7PS.
> Can't even
> hear them running from a couple of feet away.
>
> 73
>
> -Jim
> NU0C

18725. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 14:36:06 UTC
From: GALE STEWARD
Topic: 18695 Message: 18725

I use fans on both my B-line and my C-line. I use the 3 1/2 inch 12 VDC fans and run them on 8 volts. They are very quiet and keep the units cool. I have one on each TX and RX sitting on the top and blowing air up, therefore sucking it out of the enclosure. I'm not running any fans on either of the AC-4 supplies.

On my L4, I am using the larger 5 inch muffin fans. I'm using 115 VAC fans that were sold by Rotron as "whisper" fans. They are about half the speed on the "normal" ones are are quiet. I have two of them on the L4 (one above each 3-500Z) and I have a third one on the L4PS. These keep the amp and power supply cool even during a contest as the L4 is my main station amp. It got a good workout last weekend in the ARRL DX.

73, Stew K3ND

18726. Re: [DrakeRadio] Re: Drake R-4A vs a few modern receivers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 14:53:10 UTC
From: Garey Barrell
Topic: 18712 Message: 18726

This is a popular story, BUT if you look at the manuals for these radios, the Power Requirements are specified as
'120/240 VAC, 50-60 Hz'. Actually you have to go back to the early 1950's to find lower AC voltages, and then the
specified voltage was 118 VAC. The 1940's saw 115 VAC fairly regularly. Certainly a bucking transformer won't hurt
anything and will reduce the operating temperature. I don't really like a Variac, because most of them will actually
put out 10-15% ABOVE line voltage if turned up (accidentally).

Regardless, most equipment is specified as +/- 10%. All that aside, anything that reduces operating temperature will
extend component and thus equipment life. A small fan exhausting hot air from the area will greatly reduce device
temperatures in these units, and just HAS to increase Mean Time Before Failure, (MTBF).

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mark Gilger wrote:
> You might consider lowering your supply voltage with a variac. When
> Drake designed all of their radios, the typical line voltage was only
> 115 volt, in many cases it's now up around 120-125vac. Mine was
> usually hanging around 123vac.
>
> With the higher line voltage, the filament voltage will also be
> higher, in some case up around 7 volts. Higher filament voltage =
> lower tube live and more heat.
>
> 73's
> Mark WB0IQK
>
>

18727. Drifting tone/freq(?) on my 4B Twins

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 15:09:02 UTC
From: <rsilvercat@...>
Topic: 18727 Message: 18727

I've been running my 4B Twins on 20 meters while my Ten Tec rig was at the factory for service. Recently I've experienced several QSO's where the other Op's tone wavered off frequency. I thought it might be the other Op's rig, but they reported my tone/frequency was wavering in their Rx. Since this has occurred several times, I'm relatively sure it's a problem in my rig.

The AC4 is still running on its original caps, the tubes are probably original to the rig (I purchased them, along with the original sales receipt, from the sole owner several years ago).

Does this sound like a power supply problem or is this a familiar characteristic problem that perhaps relates to a tube in the PTO stage? I'm slaving the T4XB off of the R4B's PTO.

Bill Silverman, NK6Q
Pasadena, CA

18728. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 15:17:23 UTC
From: <w5rkl@...>
Topic: 18695 Message: 18728

I cool the final stage in both my T4XB and T4XC transmitters with 12VDC muffin fans removed from blown computer power supplies. Each is powered by rectifying the 12VAC filament voltage using a half wave rectifier and an 8ufd 25VDC filter cap. Fan speed is slower than normal but fast enough to cool the final amplifier nicely and you barely hear it running. The fan is mounted outside on the rear rear wall of the final cage using short inch long 6/32 screws and nuts. I have it blow air into the final rather than suck air out of the final. I take a few moments every 6 months to check and, if necessary, blow out all dust that has collected on the final tubes and components.

73
Mike W5RKL

18729. Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 17:54:58 UTC
From: Bob Jackson
Topic: 18729 Message: 18729

Has anyone ever written a book on Drakes like Dachis did on Hallicrafters?

Bob AG5X
Whitehouse, TX

18730. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:01:12 UTC
From: Dino Papas
Topic: 18729 Message: 18730

Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.

May be hard to find these days.

Dino KL0S

On Feb192014, at 1254 PM, Bob Jackson <bob145@...> wrote:

>
> Has anyone ever written a book on Drakes like Dachis did on Hallicrafters?
>
> Bob AG5X
> Whitehouse, TX

18731. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:11:23 UTC
From: Joe - W7RKN
Topic: 18729 Message: 18731

Amazon has it!

http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story

Joe - W7RKN

----- Original Message -----
From: Dino Papas
Subject: Re: [DrakeRadio] Drake Compendium

Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.

May be hard to find these days.

Dino KL0S

18732. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:18:42 UTC
From: K5MYJ
Topic: 18729 Message: 18732

Why are the NEW ones cheaper than the USED ones?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Joe - W7RKN
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, February 19, 2014 10:11 AM
Subject: Re: [DrakeRadio] Drake Compendium

Amazon has it!

http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story

Joe - W7RKN

----- Original Message -----
From: Dino Papas
Subject: Re: [DrakeRadio] Drake Compendium

Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.

May be hard to find these days.

Dino KL0S

18733. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:32:23 UTC
From: Garey Barrell
Topic: 18729 Message: 18733

Bob -

Yes, "A Family Affair - The R L Drake Company Story"

It has a good description of the early days, but kind of skips over the 4-Line to the 7-Line 'death spiral'. But then
I'm prejudiced! :-)

About half is stuff that probably came from the internet groups and their predecessors.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bob Jackson wrote:
>
>
> Has anyone ever written a book on Drakes like Dachis did on Hallicrafters?
> Bob AG5X
> Whitehouse, TX
>
>
> _

18734. Distortion of T-4XB SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:45:54 UTC
From: Bill Ellis
Topic: 18734 Message: 18734

Went to check into a SSB net yesterday and I was told my audio was distorted. What could be the problem. I've never used SSB before

Thanks and 73's .

Bill, WB9CAC

18735. Re: [DrakeRadio] Distortion of T-4XB SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 18:56:01 UTC
From: Garey Barrell
Topic: 18734 Message: 18735

Hi Bill -

More info. 'Distorted' how? Bassy, hissy, garbled, muffled, ?? Most likely the Carrier Osc needs to be set.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bill Ellis wrote:
> Went to check into a SSB net yesterday and I was told my audio was distorted. What could be the problem. I've never used SSB before
>
>
> Thanks and 73's .
>
>
> Bill, WB9CAC
>
>

18736. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 19:36:44 UTC
From: Gary Woods
Topic: 18729 Message: 18736

On Wed, 19 Feb 2014 13:01:12 -0500, you wrote:

>Sure did?.John Loughmiller, KB9AT penned ?A Family Affair - The R.L. Drake Story? in October 2000, a very comprehensive history of the company and the radios.
>
>May be hard to find these days.

abebooks.com has a few copies, but they ain't cheap!

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

18737. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 20:02:54 UTC
From: Whitebear
Topic: 18729 Message: 18737

Others have given you the answer. It's a must have for Drake guys. I suggest you post a WTB on the Drake and BA reflectors and maybe locate a copy that way. 73 Scott WA9WFA

Sent from my iPhone

> On Feb 19, 2014, at 11:54 AM, "Bob Jackson" <bob145@...> wrote:
>
>
>
> Has anyone ever written a book on Drakes like Dachis did on Hallicrafters?
>
> Bob AG5X
> Whitehouse, TX
>
>
>

18738. Re: [DrakeRadio] A Family Affair (Compendium)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 20:23:50 UTC
From: Chgypsy@...
Topic: 18738 Message: 18738

Hi all,

"A Family Affair " has been a stock book at _www.universal-radio.com_
(http://www.universal-radio.com) (Columbus, OH) for years.
They do sell them at their booth at the Dayton Hamvention each year, for
what I recall was a reasonable price. Carl WD8NHK

18739. Re: [DrakeRadio] Distortion of T-4XB SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 20:56:11 UTC
From: Bill Ellis
Topic: 18734 Message: 18739

Garey,

The comment was it sounded like it was being overdriven.

Bill

On Wed, 2/19/14, Garey Barrell <k4oah@...> wrote:

Subject: Re: [DrakeRadio] Distortion of T-4XB SSB
To: DrakeRadio@yahoogroups.com
Date: Wednesday, February 19, 2014, 11:56 AM

Hi Bill -

More info. 'Distorted' how? Bassy, hissy,
garbled, muffled, ?? Most likely the Carrier Osc needs to
be set.

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

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<www.k4oah.com>

Bill Ellis wrote:

> Went to check into a SSB net yesterday and I was told
my audio was distorted. What could be the problem. I've
never used SSB before

>

>

> Thanks and 73's .

>

>

> Bill, WB9CAC

>

>

18740. Re: [DrakeRadio] Distortion of T-4XB SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 21:13:07 UTC
From: Garey Barrell
Topic: 18734 Message: 18740

Bill -

Not much to go on.

Idle current correct? (70 ma)

What microphone?

Where was GAIN set?

What does PLATE meter reading kick up to?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bill Ellis wrote:
> Garey,
>
> The comment was it sounded like it was being overdriven.
>
> Bill
> ---
> On Wed, 2/19/14, Garey Barrell <k4oah@...> wrote:
>
> Subject: Re: [DrakeRadio] Distortion of T-4XB SSB
> To: DrakeRadio@yahoogroups.com
> Date: Wednesday, February 19, 2014, 11:56 AM
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> Hi Bill -
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>
> More info. 'Distorted' how? Bassy, hissy,
> garbled, muffled, ?? Most likely the Carrier Osc needs to
> be set.
>
>
>
> 73, Garey - K4OAH
>
> Glen Allen, VA
>
>
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> and TR-4/C Service Supplement CDs
>
> <www.k4oah.com>
>
>
>
> Bill Ellis wrote:
>
> > Went to check into a SSB net yesterday and I was told
> my audio was distorted. What could be the problem. I've
> never used SSB before
>
> >
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> >
>
> > Thanks and 73's .
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> > Bill, WB9CAC
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> ------------------------------------
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> Yahoo Groups Links
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> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7106 - Release Date: 02/19/14
>
>
>

18741. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 21:58:37 UTC
From: Evan Rolek
Topic: 18729 Message: 18741

Bob, et. al.,

There are several factors at work here and this is not at all unusual. For example, I auctioned a new Drake CW-75 keyer, with manual, box, etc. and it sold for 1/3 of what the used ones, without guarantee or manual in unknown condition, were selling for on Upay, I mean Ebay, at the same time. I have some new Astatic 10DA microphone heads and the used ones are going for two to three times what I can get for my new ones. Some of the currently selling 2M mobiles go for something like $50 or more at auction, used, than what they are currently selling for new at the dealers; an amount much greater than tax and shipping charges. Obviously, some people have enough money that they don't have to look for the best pricing; I'm not that rich and have to be more discerning, hi hi.

73,

Evan, K9SQG

-----Original Message-----
From: K5MYJ <macklinbob@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Feb 19, 2014 1:18 pm
Subject: Re: [DrakeRadio] Drake Compendium

Why are the NEW ones cheaper than the USED ones?

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----

From: Joe - W7RKN

To: DrakeRadio@yahoogroups.com

Sent: Wednesday, February 19, 2014 10:11 AM

Subject: Re: [DrakeRadio] Drake Compendium

Amazon has it!

http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story

Joe - W7RKN

----- Original Message -----

From: Dino Papas

Subject: Re: [DrakeRadio] Drake Compendium

Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.

May be hard to find these days.

Dino KL0S

18742. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 22:10:22 UTC
From: Dino Papas
Topic: 18729 Message: 18742

A friend of mine writes electronics texts and self-publishes them. I came across some folks selling his books on eBay for 3-4 times the price that you could buy the volumes direct from his company. I asked him why that was and he provided the seminal P.T. Barnum analogy - these guys would advertise his books, not even actually having them, then when a buyer (make that sucker) bought the book (why? Beats the heck out of me!) they would simply buy one from him and then ship it off to the sucker and pocket a hefty profit.

Amazing!

Dino KL0S

On Feb192014, at 1658 PM, Evan Rolek <k9sqg@arrl.net> wrote:

> Bob, et. al.,
>
>
> There are several factors at work here and this is not at all unusual. For example, I auctioned a new Drake CW-75 keyer, with manual, box, etc. and it sold for 1/3 of what the used ones, without guarantee or manual in unknown condition, were selling for on Upay, I mean Ebay, at the same time. I have some new Astatic 10DA microphone heads and the used ones are going for two to three times what I can get for my new ones. Some of the currently selling 2M mobiles go for something like $50 or more at auction, used, than what they are currently selling for new at the dealers; an amount much greater than tax and shipping charges. Obviously, some people have enough money that they don't have to look for the best pricing; I'm not that rich and have to be more discerning, hi hi.
>
> 73,
>
> Evan, K9SQG
>
> -----Original Message-----
> From: K5MYJ <macklinbob@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Wed, Feb 19, 2014 1:18 pm
> Subject: Re: [DrakeRadio] Drake Compendium
>
>
>
> Why are the NEW ones cheaper than the USED ones?
>
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
> ----- Original Message -----
> From: Joe - W7RKN
> To: DrakeRadio@yahoogroups.com

> Sent: Wednesday, February 19, 2014 10:11 AM
> Subject: Re: [DrakeRadio] Drake Compendium
>
>
> Amazon has it!
>
> http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story
>
> Joe - W7RKN
>
> ----- Original Message -----
> From: Dino Papas
> Subject: Re: [DrakeRadio] Drake Compendium
>
> Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.
>
> May be hard to find these days.
>
> Dino KL0S
>
>
>
>

18743. ORIGINAL DRAKE MANUALS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 22:16:28 UTC
From: Heytubeguy
Topic: 18743 Message: 18743

I have the following original Drake manuals for sale:
Send zip for shipping via 1st class or Priority Mail.
I do not charge hidden fees- you pay exact quote
on USPS site from 76123.
R4-C JAN 76 NICE SHAPE SPIRAL BOUND.....$22
L-4B FEB 75 BLUE/WHITE SPIRAL BOUND....$21 GOOD CONDX
L-4B ?? OLDER GREENISH COLOR.........$18 GOOD CONDX
MN-4 AUG 77 BLUE/WHITE SUPER CONDX..$17.50
MN-4 OCT 77 BLUE/WHITE GOOD/FAIR.........$14.50

Pay Pal OK or direct.
Tnx Joe WS?E
Returns accepted if not as described.

18744. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 22:31:23 UTC
From: Leon Zebrick
Topic: 18729 Message: 18744

What percentage of ham radios up for auction include the claims “From and estate sale”, “I’m unable to test”, “lights up”, “As with all used electronics, sold as is” “I don’t know about this stuff”. Many of these sellers accidently capture parts of their electronic benches in the background of photographs, and they are almost all savvy enough to sell the PS in a separate auction. I honestly believe some of them intentionally use broken English to plant the perception that they may be a hapless seller, unaware of the great value of their find… at the “estate”. I suggest we let the fools feed off of each other and pledge to take our buying and selling of used equipment to the places where more respectable contacts can be found. We know the venues.

From: Dino Papas <kl0s@...>
To: Mail List - Drake Radio <DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 19, 2014 4:10 PM
Subject: Re: [DrakeRadio] Drake Compendium

A friend of mine writes electronics texts and self-publishes them. I came across some folks selling his books on eBay for 3-4 times the price that you could buy the volumes direct from his company. I asked him why that was and he provided the seminal P.T. Barnum analogy - these guys would advertise his books, not even actually having them, then when a buyer (make that sucker) bought the book (why? Beats the heck out of me!) they would simply buy one from him and then ship it off to the sucker and pocket a hefty profit.

Amazing!

Dino KL0S

On Feb192014, at 1658 PM, Evan Rolek <k9sqg@...> wrote:

>Bob, et. al.,
>
>
>There are several factors at work here and this is not at all unusual. For example, I auctioned a new Drake CW-75 keyer, with manual, box, etc. and it sold for 1/3 of what the used ones, without guarantee or manual in unknown condition, were selling for on Upay, I mean Ebay, at the same time. I have some new Astatic 10DA microphone heads and the used ones are going for two to three times what I can get for my new ones. Some of the currently selling 2M mobiles go for something like $50 or more at auction, used, than what they are currently selling for new at the dealers; an amount much greater than tax and shipping charges. Obviously, some people have enough money that they don't have to look for the best pricing; I'm not that rich and have to be more discerning, hi hi.
>
>
>
>73,
>

>
>
>Evan, K9SQG
>
>
>
>-----Original Message-----
>From: K5MYJ <macklinbob@...>
>To: DrakeRadio <DrakeRadio@yahoogroups.com>
>Sent: Wed, Feb 19, 2014 1:18 pm
>Subject: Re: [DrakeRadio] Drake Compendium
>
>
>
>Why are the NEW ones cheaper than the USED ones?
>
>Bob Macklin
>K5MYJ
>Seattle, Wa.
>"Real Radios Glow In The Dark"
>----- Original Message -----
>>From: Joe - W7RKN
>>To: DrakeRadio@yahoogroups.com
>>Sent: Wednesday, February 19, 2014 10:11 AM
>>Subject: Re: [DrakeRadio] Drake Compendium
>>
>>
>>Amazon has it!
>>
>>http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story
>>
>>Joe - W7RKN
>>
>>----- Original Message -----
>>>From: Dino Papas
>>>Subject: Re: [DrakeRadio] Drake Compendium
>>>
>>>Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.
>>>
>>>
>>>May be hard to find these days.
>>>
>>>
>>>
>>>Dino KL0S
>>>
>>>
>>>

>
>

18745. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 22:59:39 UTC
From: Robert Spooner
Topic: 18695 Message: 18745

Jim,

I'd be worried about the electronic noise that brushless DC fans would make. Can you detect any difference in noise level on your receiver when you turn the fans on?

73,
Bob AD3K

On Feb 18, 2014, at 9:37 PM, Jim Shorney <jshorney@...> wrote:

>
> It should be noted that the larger the fan the slower it needs to turn for the
> same volume of air. I have two of what I call "biga$$ server fans", 12V
> brushless DC fans, wired in series running on 12V on top of my L7PS. Can't even
> hear them running from a couple of feet away.
>
> 73
>
> -Jim
> NU0C
>
> On Tue, 18 Feb 2014 13:31:29 -0500, w1es1982@... wrote:
>
> >For these little fans, there's ample power in the filament supply. Just make a half-wave rectified supply with about 100 uf capacitance and run the fan off that. If you tap off at 6.3V, you should have more than enough to turn a 12V fan at low speed - which is more than enough.
> >
> >Richard's comment reminded me that I keep both my T-4XB and R-4B cool at the same time with one fan. My T-4XB sits on the right, with the MS-4/AC-4 to the left of it and the R-4B on top of the MS-4. The airflow from the final cage passes the right side of the R-4B, thus also keeping that normally hot side of the R-4B cool, as well.
> >
> >73,
> >
> >Steve, W1ES/4
> >
> >---- Richard Knoppow <1oldlens1@...om.com> wrote:
> >>
> >> ----- Original Message -----
> >> From: "Steve Toth" <stoth47@...>
> >> To: <DrakeRadio@yahoogroups.com>
> >> Sent: Tuesday, February 18, 2014 8:59 AM
> >> Subject: [DrakeRadio] Easy questions on cooling fans
> >>
> >>

> >> > I'm mounting a small 12v computer fan on the top of the
> >> > finals cage of my T4XB to blow air out of the xmtr.
> >> >
> >> > I want the install to look clean and professional. Where
> >> > is the best place to pick off 6v to run it at half speed?
> >> > Should I plan on mounting a small terminal strip inside
> >> > the chassis with a rectifier and cap for conversion from
> >> > AC to DC?
> >> >
> >> > Is it worth it to do the same with an R4C? Same questions
> >> > and where would you mount the fan on the rcvr?.
> >> >
> >> > Thanks!
> >> >
> >> >
> >> > -- Steve
> >> >
> >> I have a 220V fan connected to 120, it runs fast enough
> >> to cool the TX but doesn't make any noise. I would be
> >> reluctant to power anything external from the TX because I
> >> don't know if the power supply has the reserve. I just sit
> >> my blower on top of the cage with the finals. I put
> >> self-adhesive foam weather stripping around the edges of the
> >> fan. This acts as isolation for vibration (there isn't much
> >> anyway) and maybe increases the air flow a little. I also
> >> put protective screens on both sides of the blower.
> >> The transformer in my R4B gets quite hot. If I put a
> >> blower like the above over it it stays cool to the touch. I
> >> think a very small blower would do the job. I don't know if
> >> its really necessary but I was brought up on the theory that
> >> equipment lasts longest when kept cool.
> >> I got my blowers from All Electronics, they have a web
> >> site, but are not too long a drive from here so I just
> >> walked in and bought a couple of blowers that were on sale.
> >> I started with a 115VAC blower but could hear it even though
> >> my hearing is no long very good so I changed to the HV
> >> blower running at half-voltage. It works like a charm. I
> >> got the protective screens when I got the blowers. The
> >> weather stripping came from a local hardware store. I put
> >> cord switches in the lines to the blowers.
> >>
> >>
> >> --
> >> Richard Knoppow
> >> Los Angeles
> >> WB6KBL
> >> dickburk@...
> >>
> >
> >

>
> --
> “There’s something out of place – let’s go and poke it with a stick.” – The Doctor, "Amy’s Choice"
>
>
>

18746. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-19 23:06:11 UTC
From: Doug
Topic: 18729 Message: 18746

Leon,

Very good idea! I have taken that approach. The few items I have purchased have been, in great working condition, near 10 out of 10 etc. Get the items and you can tell they haven't worked and couldn't have worked in 10 years. Then I spend 3 or 4 weeks working on them to breath life back into it. It's amazing how my opinion of a 10 is 360 degrees different than those folks!!!

Doug - N9XTF

Sent from my iPhone

> On Feb 19, 2014, at 17:31, Leon Zebrick <lzebrick@...> wrote:
>
> What percentage of ham radios up for auction include the claims “From and estate sale”, “I’m unable to test”, “lights up”, “As with all used electronics, sold as is” “I don’t know about this stuff”. Many of these sellers accidently capture parts of their electronic benches in the background of photographs, and they are almost all savvy enough to sell the PS in a separate auction. I honestly believe some of them intentionally use broken English to plant the perception that they may be a hapless seller, unaware of the great value of their find… at the “estate”. I suggest we let the fools feed off of each other and pledge to take our buying and selling of used equipment to the places where more respectable contacts can be found. We know the venues.
>
> From: Dino Papas <kl0s@...>
> To: Mail List - Drake Radio <DrakeRadio@yahoogroups.com>
> Sent: Wednesday, February 19, 2014 4:10 PM
> Subject: Re: [DrakeRadio] Drake Compendium
>
>
> A friend of mine writes electronics texts and self-publishes them. I came across some folks selling his books on eBay for 3-4 times the price that you could buy the volumes direct from his company. I asked him why that was and he provided the seminal P.T. Barnum analogy - these guys would advertise his books, not even actually having them, then when a buyer (make that sucker) bought the book (why? Beats the heck out of me!) they would simply buy one from him and then ship it off to the sucker and pocket a hefty profit.
>
> Amazing!
>
> Dino KL0S
>
>> On Feb192014, at 1658 PM, Evan Rolek <k9sqg@...> wrote:
>>
>>
>> Bob, et. al.,
>>

>> There are several factors at work here and this is not at all unusual. For example, I auctioned a new Drake CW-75 keyer, with manual, box, etc. and it sold for 1/3 of what the used ones, without guarantee or manual in unknown condition, were selling for on Upay, I mean Ebay, at the same time. I have some new Astatic 10DA microphone heads and the used ones are going for two to three times what I can get for my new ones. Some of the currently selling 2M mobiles go for something like $50 or more at auction, used, than what they are currently selling for new at the dealers; an amount much greater than tax and shipping charges. Obviously, some people have enough money that they don't have to look for the best pricing; I'm not that rich and have to be more discerning, hi hi.
>>
>> 73,
>>
>> Evan, K9SQG
>>
>> -----Original Message-----
>> From: K5MYJ <macklinbob@...>
>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> Sent: Wed, Feb 19, 2014 1:18 pm
>> Subject: Re: [DrakeRadio] Drake Compendium
>>
>>
>> Why are the NEW ones cheaper than the USED ones?
>>
>> Bob Macklin
>> K5MYJ
>> Seattle, Wa.
>> "Real Radios Glow In The Dark"
>> ----- Original Message -----
>> From: Joe - W7RKN
>> To: DrakeRadio@yahoogroups.com
>> Sent: Wednesday, February 19, 2014 10:11 AM
>> Subject: Re: [DrakeRadio] Drake Compendium
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>>
>> Amazon has it!
>>
>> http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=A%20Family%20Affair%20-%20The%20R.L.%20Drake%20Story
>>
>> Joe - W7RKN
>>
>> ----- Original Message -----
>> From: Dino Papas
>> Subject: Re: [DrakeRadio] Drake Compendium
>>
>> Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.
>>
>> May be hard to find these days.
>>

>> Dino KL0S
>
>
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18747. Re: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 00:31:26 UTC
From: Steve Wedge
Topic: 18729 Message: 18747

No, I still bid on them but only lowball.

Sometimes, I win.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Leon Zebrick
Sent: Wednesday, February 19, 2014 5:31 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Compendium

What percentage of ham radios up for auction include the claims “From and estate sale”, “I’m unable to test”, “lights up”, “As with all used electronics, sold as is” “I don’t know about this stuff”. Many of these sellers accidently capture parts of their electronic benches in the background of photographs, and they are almost all savvy enough to sell the PS in a separate auction. I honestly believe some of them intentionally use broken English to plant the perception that they may be a hapless seller, unaware of the great value of their find… at the “estate”. I suggest we let the fools feed off of each other and pledge to take our buying and selling of used equipment to the places where more respectable contacts can be found. We know the venues.

From: Dino Papas <kl0s@...>
To: Mail List - Drake Radio <DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 19, 2014 4:10 PM
Subject: Re: [DrakeRadio] Drake Compendium

A friend of mine writes electronics texts and self-publishes them. I came across some folks selling his books on eBay for 3-4 times the price that you could buy the volumes direct from his company. I asked him why that was and he provided the seminal P.T. Barnum analogy - these guys would advertise his books, not even actually having them, then when a buyer (make that sucker) bought the book (why? Beats the heck out of me!) they would simply buy one from him and then ship it off to the sucker and pocket a hefty profit.

Amazing!

Dino KL0S

On Feb192014, at 1658 PM, Evan Rolek <k9sqg@...> wrote:

Bob, et. al.,

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mean Ebay, at the same time. I have some new Astatic 10DA microphone heads and the used ones are going for two to three times what I can get for my new ones. Some of the currently selling 2M mobiles go for something like $50 or more at auction, used, than what they are currently selling for new at the dealers; an amount much greater than tax and shipping charges. Obviously, some people have enough money that they don't have to look for the best pricing; I'm not that rich and have to be more discerning, hi hi.

73,

Evan, K9SQG

-----Original Message-----
From: K5MYJ <macklinbob@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Feb 19, 2014 1:18 pm
Subject: Re: [DrakeRadio] Drake Compendium

Why are the NEW ones cheaper than the USED ones?

Bob Macklin
K5MYJ
Seattle, Wa.
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----- Original Message -----
From: Joe - W7RKN
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Amazon has it!

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Joe - W7RKN

----- Original Message -----
From: Dino Papas
Subject: Re: [DrakeRadio] Drake Compendium

Sure did….John Loughmiller, KB9AT penned “A Family Affair - The R.L. Drake Story” in October 2000, a very comprehensive history of the company and the radios.

May be hard to find these days.

Dino KL0S

18748. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 05:47:27 UTC
From: Jim Shorney
Topic: 18695 Message: 18748

It's usually better to pull air out than to push air in unless the system is designed for forced air cooling in the first place.

73

-Jim
NU0C

On 19 Feb 2014 07:17:23 -0800, w5rkl@... wrote:

> I have it blow air into the final rather than suck air out of the final.

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18749. TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 14:45:42 UTC
From: <radiomanl@...>
Topic: 5900 Message: 18749

Was given an RV4C and what little information I can find on it tells me it should work with the TR3 and it does and is stable . the problem I have is that the dial reads I think 10 khz low . was on 3870 net wednesday night and the dial was on 60 a little more that halfway between 300 and 400 on the upper scale . could that be caused by the difference between the TR3 and TR4C ? also how does one read the scale ?

andrew
kd5pnt

18750. Re: [DrakeRadio] TR3/ RV4C ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 15:44:49 UTC
From: Chgypsy@...
Topic: 18750 Message: 18750

Andrew,
The manual for the RV4C is available at _www.wb4hfn.com_
(http://www.wb4hfn.com) also at _www.mods.dk_ (http://www.mods.dk) both would be free.
Yes the unit will work with the TR3.
The latter is a good reference to look at for what is available at that
site, I would use the former first as you don't have to sign to get material.

I believe the basic frequency EG 3.xxx on the TR3 is your controlling
factor as to what the remote unit is showing; Never played with one.

The PTO in the RV4c may need a slight manual alignment which has some
explanation on WB4HFN's site I am sure you will get other responses from the
list. The lever is slid over and you do a slight knob turn, for the
limited amount you reference. Garey K4OAH would probably be your best
information source.
73's and good luck, Carl WD8NHK

snips.

radiomanl@... (mailto:radiomanl@...) writes:... RV4C
... the problem I have is that the dial reads I think 10 khz low . was on
3870 net and the dial was on 60 .....between 300 and 400 on the upper scale
. could that be caused by the difference between the TR3 and TR4C ? also
how does one read the scale ? andrew kd5pnt

18751. Re: [DrakeRadio] TR3/ RV4C ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 16:52:58 UTC
From: <w5rkl@...>
Topic: 18750 Message: 18751

The RV4C will work with the TR3 after performing a slight change in the TR3's remote VFO plug/socket. See the following link for the simple VFO plug modification instructions.

http://www.zerobeat.net/drakelist/drakemod/drmod80.html
http://www.zerobeat.net/drakelist/drakemod/drmod80.html

The RV4C has "dual clear scale dials", just like the TR4C and the C line T4XC and R4C xmtr and rcvr. The TR3 has a single scale dial..

73
Mike W5RKL

18752. R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 17:21:43 UTC
From: <wa6wgs@...>
Topic: 18752 Message: 18752

Good morning group,
I really enjoy reading the emails from everyone.
I have a R4C and T4XC that I purchased new in the early 1970's. They were in storage for awhile, and now have been in daily use for the last 3 months or so. I want to work split on 10 meters. I need to purchase a 39.1 and a 39.6 MHZ crystal for the T4XC.
Which of the crystal companies would be best to purchase from? I see International Crystal, Jan, and AF4K.com, etc. Has anyone had dealings with crystal purchases?
Thanks in advance for any advice.
Ed WA6WGS

18753. Re: [DrakeRadio] R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 17:35:14 UTC
From: Evan Rolek
Topic: 18752 Message: 18753

Ed,

I've bought crystals from International Crystal over the years. Why? When I call, all the woman wanted was the model number of the gear and she had the specs. With a lifetime guarantee, I didn't see any reason to go elsewhere. Delivery was always faster than what was quoted.

73,

Evan, K9SQG

-----Original Message-----
From: wa6wgs <wa6wgs@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Feb 20, 2014 12:23 pm
Subject: [DrakeRadio] R4C-T4XC Band crystals

Good morning group,
I really enjoy reading the emails from everyone.
I have a R4C and T4XC that I purchased new in the early 1970's. They were in storage for awhile, and now have been in daily use for the last 3 months or so. I want to work split on 10 meters. I need to purchase a 39.1 and a 39.6 MHZ crystal for the T4XC.
Which of the crystal companies would be best to purchase from? I see International Crystal, Jan, and AF4K.com, etc. Has anyone had dealings with crystal purchases?
Thanks in advance for any advice.
Ed WA6WGS

18754. Re: [DrakeRadio] R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 17:30:14 UTC
From: Don Cunningham
Topic: 18752 Message: 18754

Ed,
International in Oklahoma City is still owned by an amateur, still has the cutting instructions for Drake and will deliver a an accurate crystal that will work in your Drake well or they will cut another free. They may be a bit more expensive, although I doubt it, and usually deliver well before the time they tell you on the phone. I believe the lady's name is Sarah on the phone, but when you tell them it is an amateur crystal, they know who to give you. I don't have the number handy, but you can Google International Crystal and it will come right up. They are around $20 each and well worth the price.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7110 - Release Date: 02/20/14

18755. RE: [DrakeRadio] Drake Compendium

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 17:41:38 UTC
From: Ed Tanton
Topic: 18729 Message: 18755

By the way, that’s MY R4-B on the back cover. Still have it, of course.

Ed Tanton

website: http://www.n4xy.com <http://www.n4xy.com/>

All emails <IN> & <OUT> checked by
Norton AntiVirus with AutoProtect

Wag more / Bark less

18756. Re: [DrakeRadio] TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 17:58:46 UTC
From: Garey Barrell
Topic: 5900 Message: 18756

Andrew -

Yes, the RV-4C will work fine with the TR-3. There is a modification needed in the TR-3 to allow the RV-4C to disable
the TR-3 PTO, otherwise when the RV-4C tries to control the frequency, BOTH PTOs will be active. Not good!. If the mod
has been made, if you unplug the RV-4C from the TR-3, the TR-3 will be 'dead', as in no PTO. If the TR-3 works with the
RV-4C unplugged, you need to make the mod. There is a jumper between Pins 2 and 8 on the RV connector on the bottom of
the TR-3. That jumper must be cut. If you want to use the TR-3 then without the RV-4 connected, you'll have to either
replace the jumper, or make up a 'dummy' plug with pins 2 and 8 connected.

The "C" dials work a little different than the earlier single dial radios. There will be one or two flat metal 'levers'
on top of the PTO gearbox. If there is only one, depressing it will free the kHz (000-500) dial which can then be
aligned with the actual frequency. You can tune in the Calibrator with the RV-4C in RECV control, depress the lever,
and rotate the dial to 000. This is a little difficult to do without removing the RV-4C from the cabinet, but once done
it shouldn't change. IF there are two levers on the gearbox, the 'other' one releases the 100 kHz dial.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

radiomanl@... wrote:
>
>
> Was given an RV4C and what little information I can find on it tells me it should work with the TR3 and it does and is
> stable . the problem I have is that the dial reads I think 10 khz low . was on 3870 net wednesday night and the dial
> was on 60 a little more that halfway between 300 and 400 on the upper scale . could that be caused by the difference
> between the TR3 and TR4C ? also how does one read the scale ?
>

18757. Re: [DrakeRadio] R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 18:32:14 UTC
From: <wa6wgs@...>
Topic: 18752 Message: 18757

Hi Don,
Thanks for the comments. I was leaning towards International Crystal. If it was for my old Globe Chief with an FT-243 holder, I would get out my sand paper and go to town to get it from 80M to 40M.
At that frequency want to make sure the crystal will work in the Drake oscillator circuit properly.
Have a good one 73's
Ed

18758. Re: [DrakeRadio] R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 18:40:55 UTC
From: <wa6wgs@...>
Topic: 18752 Message: 18758

Hi Evan,
The post time was the same as Don's, and I did not see your post till just now.
I am in Calif., as soon as the noon hour is over In Oka. I will give them a call.
Thankks to both of you.

Ed WA6WGS

18759. Re: [DrakeRadio] R4C-T4XC Band crystals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 19:12:29 UTC
From: <w5rkl@...>
Topic: 18752 Message: 18759

Yep, I agree, International Crystals in OKCity will provide you with the crystal you need. I have purchased crystals to replaced failed HET OSC crystals in my Drake T4XB and an older 16K serial number R4C.

Sarah Gore is who I deal with for all my crystals needs. I have never received a bad crystal or a crystal that has failed after being put in use.

73
Mike W5RKL

18760. Re: [DrakeRadio] TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 19:38:18 UTC
From: <radiomanl@...>
Topic: 5900 Message: 18760

I know about and have already cut the jumper and made one on a dummy plug to put in the rv socket when the RV is not connected
my problem is that the frequency is off on the RV4C dial . on 75 metres receiving the 3870 net it comes in on 3860 for a 10 khz difference . on 40 it is a little different only off 8 khz . that is a little puzzling , I would expect the error to be constant on all the bands or am I wrong about that ? have not checked the other bands yet . don't want to make it worse by doing something stupid . also I have not really figured out how to read the dial . I think you have to add the band switch frequency to the dial reading to find the station .

18761. Re: [DrakeRadio] TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 22:39:24 UTC
From: <w5rkl@...>
Topic: 5900 Message: 18761

The VFO operates over a set frequency range between 4.999Mhz and 5.500Mhz and that frequency range does not change regardless of the band switch position. Believing the VFO frequency tuning range changes between bands is a mistake many inexperienced hams tend to make. If you review the TR3's operators manual the signal processing in both transmit and receive is discussed. If you do not have the TR3 manual, click on the following link to download the manual.

http://gmcotton.com/Ham_Radio/MISC%20Manuals/Drake/Drake_TR3%20HF%20Tranciever_Service%20Manual.pdf http://gmcotton.com/Ham_Radio/MISC%20Manuals/Drake/Drake_TR3%20HF%20Tranciever_Service%20Manual.pdf

Go to Chapter VI, page 21, and study "THEORY OF OPERATION" along with the block diagram on page 24.

The RV4C VFO manual can be downloaded at

http://www.wb4hfn.com/DRAKE/DrakeManuals/RV4C/Manual_RV4C.htm
http://www.wb4hfn.com/DRAKE/DrakeManuals/RV4C/Manual_RV4C.htm

The RV4C has 2 dials, a front and rear dial. The Rear dial is marked off in 100Khz increments with numbers starting at zero through 500. The front dial is marked off in 1Khz increments. Each front dial small "tick mark" equals 1Khz and each number represents 10Khz starting at zero through 90 then zero again.. Therefore, if the band switch is set to 7.0, the RV4C VFO FUNCTION switch is set to RCV/XMT, the rear dial is set between 100 and 200 and the front dial is set so the 50 is in line with the RV4C's window RED vertical line, the frequency for transmit and receive is 7.150Mhz. Once you get the hang of this you should have no trouble using the RV4C VFO.

With the RV4C connected to the TR3 and the RV4C FUNCTION switch set to REC/XMT, the RV4C controls the TR3 transmit and receive frequency. Setting the R4VC FUNCTION switch to OFF, the TR3's internal VFO controls the TR3. Setting the RV4C VFO FUNCTION switch to RCV, the RV4C controls the TR3's "receive" while the TR3's internal VFO control transmit. Setting the RV4C FUNCTION switch to XMT, the RV4C controls the TR3 transmit frequency while the TR3's internal VFO controls receive.

73
Mike W5RKL

18762. RE: TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 23:01:32 UTC
From: <radiomanl@...>
Topic: 5900 Message: 18762

Thanks I know the tuning range does not change with the bandswitch . I have manuals for both and with the TR3 controlling the stations are approximately where I expect to find them . The RV4C is 10kcs low on 75 metres and 8 kcs low on 40 metres . as an example the 3870 net was being received on 3860 with the RV4C controlling and 3870 with the TR3 controlling and the 7285 and 7290 nets were being received on 7277 and 7282 with the RV4C . just don't understand why there is a 2 kc difference on the different bands . the error should be constant I would expect .

andrew
kd5pnt

18763. Re: [DrakeRadio] RE: TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-20 23:42:25 UTC
From: Gary Woods
Topic: 5900 Message: 18763

On 20 Feb 2014 15:01:32 -0800, you wrote:

>just don't understand why there is a 2 kc difference on the different bands . the error should be constant I would expect .

Likely the appropriate band crystal is the offender; there's one for each band. Others will know the synthesis scheme used; I joined the party at TR-7!

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

18764. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 02:37:55 UTC
From: Robert Logan
Topic: 1054 Message: 18764

My T-4XC recently developed a problem of unkeying quickly on SPOT and when sending a long dash on CW transmit. It only occurs on CW. SSB and AM spot and transmit are as per usual. The CW DELAY pot has little effect on how quickly it unkeys on SPOT or the long dash. In addition, there is no sidetone at any settings of the antivox, VOX gain, or CW delay controls. The lack of sidetone occurred at the same time as its unkeying quickly in CW SPOT or CW transmit. When sending faster CW, the rig keys, stays on, and drops out as it should.

I've substituted 12AX7s (V9) and antivox cables but the problem persists. I'm thinking maybe C107 or CR15 might be the culprits but I don't why it would be fine in faster transmissions if they were bad. Maybe it's even a dirty relay?

Any advice would be greatly appreciated. Bob, NZ5A

Sent from my iPhone

18765. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 02:48:21 UTC
From: David Stinson
Topic: 1054 Message: 18765

Look for a gassy or hi-Z short 6EV7.

----- Original Message -----
From: "Robert Logan" <bob.logan47@...>
To: "Drake Group" <DrakeRadio@yahoogroups.com>
Sent: Thursday, February 20, 2014 8:37 PM
Subject: [DrakeRadio] T-4XC problem

My T-4XC recently developed a problem of unkeying quickly on SPOT and when sending a long dash on CW transmit. It only occurs on CW. SSB and AM spot and transmit are as per usual. The CW DELAY pot has little effect on how quickly it unkeys on SPOT or the long dash. In addition, there is no sidetone at any settings of the antivox, VOX gain, or CW delay controls. The lack of sidetone occurred at the same time as its unkeying quickly in CW SPOT or CW transmit. When sending faster CW, the rig keys, stays on, and drops out as it should.

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Any advice would be greatly appreciated. Bob, NZ5A

Sent from my iPhone

18766. Re: [DrakeRadio] RE: TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 03:18:28 UTC
From: Garey Barrell
Topic: 5900 Message: 18766

Andrew -

If you look at the block diagram in the manual, and read the 'Theory of Operation' section, you'll see that on 75M the
PTO at 5.2 MHz is mixed with the 9 MHz CAR OSC and the difference is the 3.8 MHz signal. On 20M the sum mixer product
is the 14.2 MHz signal.

On 40M the BAND oscillator runs at 21.5 MHz and is mixed with the PTO, resulting in a difference frequency of 16 MHz
which is then mixed with the 9 MHz CAR OSC, resulting in the 7.0 MHz output. So your 21.5 MHz crystal is ~ 2 kHz off
frequency.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

radiomanl@... wrote:
>
>
> Thanks I know the tuning range does not change with the bandswitch . I have manuals for both and with the TR3
> controlling the stations are approximately where I expect to find them . The RV4C is 10kcs low on 75 metres and 8 kcs
> low on 40 metres . as an example the 3870 net was being received on 3860 with the RV4C controlling and 3870 with the
> TR3 controlling and the 7285 and 7290 nets were being received on 7277 and 7282 with the RV4C . just don't understand
> why there is a 2 kc difference on the different bands . the error should be constant I would expect .
>
> andrew
> kd5pnt

18767. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 03:36:36 UTC
From: Garey Barrell
Topic: 1054 Message: 18767

Bob -

V9 is converted to a phase shift audio oscillator in CW. This is the SIDETONE, and the tone used in TUNE mode. IF TUNE
works ok, the the problem is most likely a shorted CR15. Less likely is R84/85. The reason it pulls in briefly is the
C115/CR17 network which 'yanks' the VOX on quickly to preserve the first 'dit' or the first syllable on SSB by sending a
pulse of current directly to the Grid of V10B.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
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> I've substituted 12AX7s (V9) and antivox cables but the problem persists. I'm thinking maybe C107 or CR15 might be the culprits but I don't why it would be fine in faster transmissions if they were bad. Maybe it's even a dirty relay?
>
> Any advice would be greatly appreciated. Bob, NZ5A
>
>

18768. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 05:41:25 UTC
From: Jim Shorney
Topic: 18695 Message: 18768

I haven't noted any. Where I have seen noise problems in other applications it was not radiated, but rather conducted noise induced into the power circuits. I have seen this in noise bars introduced into a high end security camera and auduble noise in a UHF low power radio system. In both cases engineering resolved the problem by adding ferrites to the power leads of the fan.

73

-Jim
NU0C

On Wed, 19 Feb 2014 17:59:39 -0500, Robert Spooner wrote:

>Jim,
>
>I□d be worried about the electronic noise that brushless DC fans would make. Can you detect any difference in noise level on your receiver when you turn the fans on?
>
>73,
>Bob AD3K
>
>On Feb 18, 2014, at 9:37 PM, Jim Shorney <jshorney@...> wrote:
>
>>
>> It should be noted that the larger the fan the slower it needs to turn for the
>> same volume of air. I have two of what I call "biga$$ server fans", 12V
>> brushless DC fans, wired in series running on 12V on top of my L7PS. Can't even
>> hear them running from a couple of feet away.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Tue, 18 Feb 2014 13:31:29 -0500, w1es1982@... wrote:
>>
>> >For these little fans, there's ample power in the filament supply. Just make a half-wave rectified supply with about 100 uf capacitance and run the fan off that. If you tap off at 6.3V, you should have more than enough to turn a 12V fan at low speed - which is more than enough.
>> >
>> >Richard's comment reminded me that I keep both my T-4XB and R-4B cool at the same time with one fan. My T-4XB sits on the right, with the MS-4/AC-4 to the left of it and the R-4B on top of the MS-4. The airflow from the final cage passes the right side of the R-4B, thus also keeping that normally hot side of the R-4B cool, as well.
>> >
>> >73,

>> >
>> >Steve, W1ES/4
>> >
>> >---- Richard Knoppow <1oldlens1@...> wrote:
>> >>
>> >> ----- Original Message -----
>> >> From: "Steve Toth" <stoth47@...>
>> >> To: <DrakeRadio@yahoogroups.com>
>> >> Sent: Tuesday, February 18, 2014 8:59 AM
>> >> Subject: [DrakeRadio] Easy questions on cooling fans
>> >>
>> >>
>> >> > I'm mounting a small 12v computer fan on the top of the
>> >> > finals cage of my T4XB to blow air out of the xmtr.
>> >> >
>> >> > I want the install to look clean and professional. Where
>> >> > is the best place to pick off 6v to run it at half speed?
>> >> > Should I plan on mounting a small terminal strip inside
>> >> > the chassis with a rectifier and cap for conversion from
>> >> > AC to DC?
>> >> >
>> >> > Is it worth it to do the same with an R4C? Same questions
>> >> > and where would you mount the fan on the rcvr?.
>> >> >
>> >> > Thanks!
>> >> >
>> >> >
>> >> > -- Steve
>> >> >
>> >> I have a 220V fan connected to 120, it runs fast enough
>> >> to cool the TX but doesn't make any noise. I would be
>> >> reluctant to power anything external from the TX because I
>> >> don't know if the power supply has the reserve. I just sit
>> >> my blower on top of the cage with the finals. I put
>> >> self-adhesive foam weather stripping around the edges of the
>> >> fan. This acts as isolation for vibration (there isn't much
>> >> anyway) and maybe increases the air flow a little. I also
>> >> put protective screens on both sides of the blower.
>> >> The transformer in my R4B gets quite hot. If I put a
>> >> blower like the above over it it stays cool to the touch. I
>> >> think a very small blower would do the job. I don't know if
>> >> its really necessary but I was brought up on the theory that
>> >> equipment lasts longest when kept cool.
>> >> I got my blowers from All Electronics, they have a web
>> >> site, but are not too long a drive from here so I just
>> >> walked in and bought a couple of blowers that were on sale.
>> >> I started with a 115VAC blower but could hear it even though
>> >> my hearing is no long very good so I changed to the HV
>> >> blower running at half-voltage. It works like a charm. I

>> >> got the protective screens when I got the blowers. The
>> >> weather stripping came from a local hardware store. I put
>> >> cord switches in the lines to the blowers.
>> >>
>> >>
>> >> --
>> >> Richard Knoppow
>> >> Los Angeles
>> >> WB6KBL
>> >> dickburk@...
>> >>
>> >
>> >
>>
>> --
>> ☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"
>>
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18769. Re: [DrakeRadio] Easy questions on cooling fans

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 05:51:06 UTC
From: Jim Shorney
Topic: 18695 Message: 18769

Nope, I've been using it for years. That page is ©2014. Besides, My phrase is "Bigass Server Fans".

73

-Jim
NU0C

On Wed, 19 Feb 2014 09:02:09 -0500 (EST), Barry wrote:

>Jim,
>
>I think someone beat you to that name. :)
>
>http://www.bigassfans.com/
>
>Regards,
>Barry - N4BUQ
>
>
>> It should be noted that the larger the fan the slower it needs to
>> turn for the
>> same volume of air. I have two of what I call "biga$$ server fans",
>> 12V
>> brushless DC fans, wired in series running on 12V on top of my L7PS.
>> Can't even
>> hear them running from a couple of feet away.
>>
>> 73
>>
>> -Jim
>> NU0C
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18770. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 14:39:58 UTC
From: Robert Logan
Topic: 1054 Message: 18770

Gary, thanks for the guidance.

TUNE works in the sense that I can peak the output with the RF TUNE and PLATE controls as indicated in an S meter on the R4B but there is no output showing even in a QRP wattmeter (which is known good). When I switch to CW and send, there is full normal output on the wattmeter (this time using the W4 wattmeter (also known good). If I try to hold a long dash, it still drops out quickly but sending a string of characters like my call or RST shows full output.

Being able to get full output when sending CW but no watts out in TUNE tells me something but I don't know what exactly. Adjusting GAIN does vary the output in both transmit and TUNE (on the S meter).

Another in this fine group suggested it might be a bad 6EV7.
Sent from my iPhone

On Feb 20, 2014, at 9:36 PM, Garey Barrell <k4oah@...> wrote:

Bob -

V9 is converted to a phase shift audio oscillator in CW. This is the SIDETONE, and the tone used in TUNE mode. IF TUNE
works ok, the the problem is most likely a shorted CR15. Less likely is R84/85. The reason it pulls in briefly is the
C115/CR17 network which 'yanks' the VOX on quickly to preserve the first 'dit' or the first syllable on SSB by sending a
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Robert Logan wrote:
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>

> Any advice would be greatly appreciated. Bob, NZ5A
>
>

18771. looking for WA6WGS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 14:47:04 UTC
From: Paul Kraemer
Topic: 18771 Message: 18771

Subject email client of this group
Please contact me regarding your emails
I can't open it, read it, move it or delete it
Looked up my Windows mail program
Wonder what can be happening

Any suggestions from others also welcome
Thanks
Paul K0UYA

18772. RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 15:00:19 UTC
From: <w7boz@...>
Topic: 18622 Message: 18772

I am dropping the price to $500 on the whole station. If interested let me know. I am open to reasonable offers.

Thanks, Kevin
W7BOZ

18773. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 15:22:07 UTC
From: Garey Barrell
Topic: 1054 Message: 18773

Bob -

OK. It's NOT V10. Sounds like the V9a audio oscillator ain't!!

The ~ 1kHz audio note generated here is 'keyed' by CR15, and amplified by V9b. Output to the BAL MOD for TUNE operation
is from the Cathode of V9b, and the SIDETONE comes from the Plate of V9b.

A shorted CR15 would give the symptoms you describe, as it would prevent the audio signal, IF it's there, from reaching
V9b. The V9a oscillation is controlled by switching in a phase shift network, R97, 98 and 99 along with associated
capacitors. Here the most likely problem is dirty switch contacts on the FUNCTION switch, on the front side of the
fourth wafer from the panel.

The signals out of V9b are MISSING, either because V9a is not generating them, or they're being prevented from reaching
V9b, most likely by a shorted CR15.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
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> Gary, thanks for the guidance.
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> the R4B but there is no output showing even in a QRP wattmeter (which is known good). When I switch to CW and send,
> there is full normal output on the wattmeter (this time using the W4 wattmeter (also known good). If I try to hold a
> long dash, it still drops out quickly but sending a string of characters like my call or RST shows full output.
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> Another in this fine group suggested it might be a bad 6EV7.
> Sent from my iPhone

>
> On Feb 20, 2014, at 9:36 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Bob -
>
> V9 is converted to a phase shift audio oscillator in CW. This is the SIDETONE, and the tone used in TUNE mode. IF TUNE
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> delay controls. The lack of sidetone occurred at the same time as its unkeying quickly in CW SPOT or CW transmit. When
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> > Any advice would be greatly appreciated. Bob, NZ5A
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> Version: 2014.0.4335 / Virus Database: 3705/7111 - Release Date: 02/20/14
>

18774. Re: [DrakeRadio] looking for WA6WGS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 15:40:18 UTC
From: Doug
Topic: 18771 Message: 18774

Log onto the server's webmail application and delete the email there.

Sent from my iPhone

> On Feb 21, 2014, at 9:47, "Paul Kraemer" <elespe@lisco.com> wrote:
>
> Subject email client of this group
> Please contact me regarding your emails
> I can't open it, read it, move it or delete it
> Looked up my Windows mail program
> Wonder what can be happening
>
> Any suggestions from others also welcome
> Thanks
> Paul K0UYA
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

18775. Re: [DrakeRadio] looking for WA6WGS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 17:28:14 UTC
From: Paul Kraemer
Topic: 18771 Message: 18775

THANKS!!!
Paul

From: Doug
Sent: Friday, February 21, 2014 9:40 AM
To: DrakeRadio@yahoogroups.com
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] looking for WA6WGS

Log onto the server's webmail application and delete the email there.

Sent from my iPhone

On Feb 21, 2014, at 9:47, "Paul Kraemer" <elespe@...> wrote:

Subject email client of this group
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Wonder what can be happening

Any suggestions from others also welcome
Thanks
Paul K0UYA

PDSWireless
Quick and Simple Internet Access
Get it now!

18776. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 21:38:00 UTC
From: Robert Logan
Topic: 1054 Message: 18776

Dang, you're clear! You must have been a professional technical writer at one time.

Thank you very much, Gary. Lots to check on but clear as a bell. Now if I could only find CR15....

I need your CD. Skinflint that I am, I gotta go ahead, unglue my wallet, and order it. Bob, NZ5A

Sent from my iPhone

On Feb 21, 2014, at 9:22 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK. It's NOT V10. Sounds like the V9a audio oscillator ain't!!

The ~ 1kHz audio note generated here is 'keyed' by CR15, and amplified by V9b. Output to the BAL MOD for TUNE operation
is from the Cathode of V9b, and the SIDETONE comes from the Plate of V9b.

A shorted CR15 would give the symptoms you describe, as it would prevent the audio signal, IF it's there, from reaching
V9b. The V9a oscillation is controlled by switching in a phase shift network, R97, 98 and 99 along with associated
capacitors. Here the most likely problem is dirty switch contacts on the FUNCTION switch, on the front side of the
fourth wafer from the panel.

The signals out of V9b are MISSING, either because V9a is not generating them, or they're being prevented from reaching
V9b, most likely by a shorted CR15.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

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18777. Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 21:48:44 UTC
From: <prosolar@...>
Topic: 18777 Message: 18777

Guys,

as the subject line says, I picked up a SPR-4 at a hamfest the other day.

It's in good shape, front panel is nice, and there doesn't seem to be any extra holes in the cabinets
It does work...to a fashion
The PTO is all screwed up. There is no dial skirt. The last owner (The guy that sold it to me) oiled the pto gear with singer sewing machine oil.
The stuff flows out of the chassis. There is a problem with the gears as you have to make one complete turn of the knob to get the plastic dials to move. The pto moves, just not the dials.

good news is it is full and i mean full of crystals.

so, were does one begin to fix this mess with the PTO?

How do you remove the oil from those nylon gears ?

What A project I have now

wb8vge, mike

18778. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 22:45:33 UTC
From: VE3AX/7
Topic: 18777 Message: 18778

Mike:

It’s basically the same as any other 4-line PTO so you can get very good instructions on removal and cleaning of the PTO from WB4HFN’s web site. Only 3 wires and 3 stud mount nuts/locks to remove and they are not too bad to get at in the SPR-4. I’ve just been through 3 of these! One of them twice! You will need to remove the front panel and dial window to remove the PTO.

I use 99.9% alcohol from the drug store to wash the bits and pieces. Windex has worked for me on the dials themselves though some guys are not in favour of that. It doesn’t remove the dial markings. Be REALLY careful removing the little brass rivets – there will be two on earlier serial #’s and 3 on later units. The ones with two brass rivets will require VERY careful removal of the plastic dial gear which is attached to the brass shaft as it has two plastic posts which have been melted slightly to hold the the 100’s dial on there. You want to leave enough post that later you can set the dial on there in the right place, then either re-melt slightly or use a bit of clear silicone as a tiny dab to hold it place. The later dials with 3 rivets don’t have that problem, if memory serves me right.

Also, be very careful of the orange coloured fiber washers- they break easily. You may see only one of those, right up against the PTO housing – it’s the last piece that comes off, and the first to go back on. Clean everything well with a small brush and the alcohol.

Take pictures as you disassemble to help you get it all back in the right place. I-phones work great! PTO’s are known to have different numbers of thin plastic washers to help keep the dials apart. Early ones had none.

Make sure the 1/4” shaft is VERY smooth – I use a bit of 1500 grit emery on it to make sure. I have found some with nasty little burrs under there. You may need to lightly sand the inner part of the brass shaft and the nylon gears as well. That first brass/nylon gear piece should spin really easily on the PTO shaft when you snap it with your fingers.

I swab the front bearing with Q-tips (or better yet, sponge – tipped swabs) soaked in alcohol until I get rid as much of the old red grease as possible. Usually takes 3 or 4 double ended swabs. Then re-grease only the bearing lightly with white lithium. I also use the swabs to clean up the threaded shaft as well.

I usually set the “yoke” at mid-range on the threaded shaft and align the dials for 250 on re-assembly. That gets me within 25 khz or so for final calibration once everything is back together. Avoids powering it up while out of the chassis but of course you could do that and read the frequency on a counter. Inevitably something gets bumped when going back together anyways.

Hope that helps – “some times you just have to go for it!” (from “The Dish” – my favourite movie)

73

Peter
VE3AX/7

From: prosolar@...m
Sent: Friday, February 21, 2014 1:48 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Guys,

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The stuff flows out of the chassis. There is a problem with the gears as you have to make one complete turn of the knob to get the plastic dials to move. The pto moves, just not the dials.

good news is it is full and i mean full of crystals.

so, were does one begin to fix this mess with the PTO?

How do you remove the oil from those nylon gears ?

What A project I have now

wb8vge, mike

18779. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 22:59:13 UTC
From: Garey Barrell
Topic: 18777 Message: 18779

Mike -

We just never learn, do we!! :-)

See <http://www.wb4hfn.com/DRAKE/DrakeArticles/PTO/Drake_PTO.htm> for starters. It's not a big deal, the problem is
most likely the rubber clutch behind the missing dial plate is gone or oiled!!

Plenty of help here, lots of PTO experience.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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18780. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-21 23:35:16 UTC
From: Mike Bryce
Topic: 18777 Message: 18780

yes, garey, the rubber clutch is rock hard

but that being said, you REALLY have to twist the main tuning knob to get
the pto shaft and the dials to move.

the pto moves okay, it's the gears and dials that are quite stiff

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

18781. Re: [Drakelist] Distortion of T-4XB SSB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 00:33:14 UTC
From: Richard Knoppow
Topic: 18781 Message: 18781

----- Original Message -----
From: "Bill Ellis" <wb9cac@...>
To: "Drakelist (Post)" <drakelist@...>;
<DrakeRadio@yahoogroups.com>
Sent: Wednesday, February 19, 2014 10:45 AM
Subject: [Drakelist] Distortion of T-4XB SSB

> Went to check into a SSB net yesterday and I was told my
> audio was distorted. What could be the problem. I've never
> used SSB before
>
>
> Thanks and 73's .
>
>
> Bill, WB9CAC
>

It could be a lot of things. Without more detail about
the nature of the distortion its hard to tell. You may be
able to monitor your signals on your own receiver. Listen on
headphones and see what you are getting. Also, do you have
an oscilloscope capable of working at the transmitted
frequency? If so the wave form can tell you a lot.
Post more detail and we will analyze the problem.
Also, get more signal reports, maybe the fellow complaining
has a bad receiver.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18782. Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 02:06:38 UTC
From: <wa4njy@...>
Topic: 18782 Message: 18782

Does anyone know where I can obtain some of the material used to make blue dial filters?
I need about a 6" x 6" piece to start with.

Thanks,
Ed WA4NJY
Bradenton, Fl

18783. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 02:07:44 UTC
From: Steve Wedge
Topic: 18777 Message: 18783

Remove the entire PTO from the chassis. Yes. This means removing the front panel. It's not hard - really.

There. Now that you're past this stress, read on.

Refer to the WB4HFN article about making the C-Line PTO "smooth and silky". Before you get there, you will need to take as many parts as you can from it and thoroughly scrub them in Simple Green, Crud Cutter or other serious surfactant, to remove all petroleum from those Nylon gears.

Note that there are at least three variations in the assembly methods of the C-Line PTO's. Document what you take apart with copious digital photos and share them with the group when you're done.

This is not rocket science, but it does require some attention to detail.

I had an SPR-4 that I could only have hoped had merely a mechanical problem. I was fortunate in that I was able to piece everything together, thanks to K9SUL lending me another receiver to copy from. Sometimes, seeing is the only way of believing. Put out the call if you need one to use as a known-good example. The list will respond!

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: prosolar@...
Sent: Friday, February 21, 2014 4:48 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Guys,

as the subject line says, I picked up a SPR-4 at a hamfest the other day.

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good news is it is full and i mean full of crystals.

so, were does one begin to fix this mess with the PTO?

How do you remove the oil from those nylon gears ?

What A project I have now

wb8vge, mike

18784. Drake RV 4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 02:18:21 UTC
From: LAWRENCE MATHESON
Topic: 18784 Message: 18784

I'm looking for a nice Drake RV 4C to go with my TR 4C. Wonder if anyone has one they would like to sell. Please reply off list.
Thanks,

Lawrence, WA4BHK

18785. Re: [DrakeRadio] Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 03:11:01 UTC
From: Richard Knoppow
Topic: 18782 Message: 18785

----- Original Message -----
From: <wa4njy@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 21, 2014 6:06 PM
Subject: [DrakeRadio] Drake Blue Filter Material

> Does anyone know where I can obtain some of the material
> used to make blue dial filters?
> I need about a 6" x 6" piece to start with.
>
> Thanks,
> Ed WA4NJY
> Bradenton, Fl

A lot of people like Lee Lagoon Blue, #172 See;
http://www.leefilters.com/lighting/colour-list.html

Lee has a dealer search on the above web page.
Somewhere also they detail the various thicknesses
available. I have not priced lighting gels for too long to
know what they cost now but in the past they were pretty
cheap.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18786. Re: [DrakeRadio] Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 03:14:42 UTC
From: Steve Wedge
Topic: 18782 Message: 18786

Bought some of this on eBay. Wicked cheap. Shipping included, and the price was about 5 bucks above the shipping charges. Cheap enough.

If you need enough for only one rig, email me off list. I'll send you enough for 6 bucks to do your rig. That covers priority mail, IIRC.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Richard Knoppow
Sent: Friday, February 21, 2014 10:11 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Blue Filter Material

----- Original Message -----
From: <wa4njy@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 21, 2014 6:06 PM
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Lee has a dealer search on the above web page.
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Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18787. RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 03:24:26 UTC
From: <wa4njy@...>
Topic: 18782 Message: 18787

The filter material has been found.

Thanks,
Ed

18788. Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 08:32:41 UTC
From: Henny Kuyper
Topic: 18782 Message: 18788

Ed

This filter type is quite close to the original

http://www.leefilters.com/lighting/colour-details.html#172

--
73, Henny, PA3HK
If it works, rip it apart and find out why!

(http://www.avast.com/)

Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus
(http://www.avast.com/) actief is.

18789. Re: [DrakeRadio] Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 12:31:40 UTC
From: Doug
Topic: 18782 Message: 18789

The bad thing about the original with yellowing of the dials and such the color comes out more green than blue. You kinda need to offset for that.

Sent from my iPhone

> On Feb 22, 2014, at 3:32, Henny Kuyper <henny.kuyper@casema.nl> wrote:
>
> Ed
>
> This filter type is quite close to the original
>
> http://www.leefilters.com/lighting/colour-details.html#172
>
> --
> 73, Henny, PA3HK
> If it works, rip it apart and find out why!
>
>
>
> Dit e-mailbericht bevat geen virussen en malware omdat avast! Antivirus actief is.
>
>
>

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Quick and Simple Internet Access
http://www.pdswireless.com

18790. Re: [DrakeRadio] Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 13:51:57 UTC
From: Chgypsy@...
Topic: 18782 Message: 18790

I'd Contact Donnie at _www.2bradioparts.com_
(http://www.2bradioparts.com) He has the material that he cuts for the various Drake dials.
Carl wd8nhk

wa4njy@... (mailto:wa4njy@...) writes:
Does anyone know where I can obtain some of the material used to make blue
dial filters?
I need about a 6" x 6" piece to start with. Ed WA4NJY Bradenton, Fl

18791. Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 14:08:01 UTC
From: Lawrence Steeno
Topic: 18782 Message: 18791

Try your local toy hobby store. I picked up there several times for just over a dollar a sheet of clear PVC blue thet is .010" thick made by Midwest Products and called Raboesch super sheet. They come in all different colors and work just excellent.
Larry K9LWI

18792. Re: [DrakeRadio] Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 14:36:34 UTC
From: Garey Barrell
Topic: 18782 Message: 18792

The dials don't yellow as much as the 'white' light shield and the 'white' diffuser. Bright white paint and a new
diffuser brings you back to the 'original' blue with Lee Lighting 172.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug wrote:
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>
> The bad thing about the original with yellowing of the dials and such the color comes out more green than blue. You
> kinda need to offset for that.
>
> Sent from my iPhone
>
> On Feb 22, 2014, at 3:32, Henny Kuyper <henny.kuyper@... <mailto:henny.kuyper@...>> wrote:
>
>> Ed
>>
>> This filter type is quite close to the original
>>
>> http://www.leefilters.com/lighting/colour-details.html#172
>>
>>

18793. Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 14:56:12 UTC
From: John Schroeder
Topic: 18782 Message: 18793

Have 2 pieces of the filter material here... They were removed from my T-4XC/R-4C, when I switched to blue LED's... They are yours ,if you want them... John ... KB9PBM ...

18794. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 15:06:30 UTC
From: Eddy Swynar
Topic: 18777 Message: 18794

On 2014-02-21, at 9:07 PM, Steve Wedge wrote:

>
> Remove the entire PTO from the chassis. Yes. This means removing the front panel. It's not hard - really.
>
> There. Now that you're past this stress, read on.
>
> Refer to the WB4HFN article about making the C-Line PTO "smooth and silky". Before you get there, you will need to take as many parts as you can from it and thoroughly scrub them in Simple Green, Crud Cutter or other serious surfactant, to remove all petroleum from those Nylon gears.
>
> Note that there are at least three variations in the assembly methods of the C-Line PTO's. Document what you take apart with copious digital photos and share them with the group when you're done.
>
> This is not rocket science, but it does require some attention to detail.
>
> I had an SPR-4 that I could only have hoped had merely a mechanical problem. I was fortunate in that I was able to piece everything together, thanks to K9SUL lending me another receiver to copy from. Sometimes, seeing is the only way of believing. Put out the call if you need one to use as a known-good example. The list will respond!
>
> 73,
>
> Steve Wedge, W1ES/4
>

Hi Steve,

I've had the PTO removed & disassembled from my T-4X transmitter several times here, & doing so most certainly never necessitated anything as drastic as the removal of the front panel...

It CAN be done strictly as an "inside job", as long as you unsolder the 3(?) wires linking the PTO to the rest of the transmitter (they come out of the PTO enclosure at the front / bottom of the shield can), and you remove the tubes immediately behind the enclosure to facilitate pulling it back once all of the fasteners are removed (I believe there are 4).

You can see the progressive steps required in removal, if you study it logically & proceed accordingly.

But why throw the complication of front panel removal into the mix, too...?! It can be a scary enough / daunting assignment on its own...

~73~ de Eddy VE3CUI - VE3XZ
>
>

18795. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 15:18:53 UTC
From: Garey Barrell
Topic: 18777 Message: 18795

It certainly can be done without removing the front panel, as Eddy says.

The only caveat is to take extreme care to avoid scraping the dial discs on the chassis edge as it comes out.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Eddy Swynar wrote:
>
>
>
> On 2014-02-21, at 9:07 PM, Steve Wedge wrote:
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>> There. Now that you're past this stress, read on.
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> */Hi Steve,/*
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> But why throw the complication of front panel removal into the mix, too...?! It can be a scary enough / daunting
> assignment on its own...
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> */~73~ de Eddy VE3CUI - VE3XZ/*
>

18796. RE: Drake RV 4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 15:27:47 UTC
From: <w1kf@...>
Topic: 18784 Message: 18796

And if anyone has a not so nice RV-4C that Lawrence does not care for, feel free to contact me off list as well. I might be interested :-)
73,
Steve
W1KF

18797. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 15:57:04 UTC
From: VE3AX/7
Topic: 18777 Message: 18797

Not wishing to start and argument over this but I have never had much luck getting the PTO out of a dual-dial rig (C-line/SPR-4) without removing the dial window glass. The PTO shaft gets hung up on it as you try to get the PTO studs up and out of chassis, then the dials get in the way etc.etc. With the window “glass” removed, it’s a piece of cake. Now any later series C-line should have the window glass mounted between the front panel and the sub-panel, requiring removal of the front panel to get at its mounting screws.
I can get the SPR-4 front panel off in under 5 minutes. Sure makes things a lot easier and as Garey says, less risk in scratching the dials.
It has been a long while since I have had a single dial (4B-line-/4A-line) PTO out so maybe things are a bit easier with those? If I’m cleaning up a newly acquired rig I usually have the front panel off anyways for a full cleaning.
YMMV!
73
Peter
VE3AX/7
From: Garey Barrell
Sent: Saturday, February 22, 2014 7:18 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

It certainly can be done without removing the front panel, as Eddy says.

The only caveat is to take extreme care to avoid scraping the dial discs on the chassis edge as it comes out.!

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> assignment on its own...
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> */~73~ de Eddy VE3CUI - VE3XZ/*
>

18798. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:05:41 UTC
From: Eddy Swynar
Topic: 18777 Message: 18798

On 2014-02-22, at 10:57 AM, VE3AX/7 wrote:

>
> Not wishing to start and argument over this but I have never had much luck getting the PTO out of a dual-dial rig (C-line/SPR-4) without removing the dial window glass. The PTO shaft gets hung up on it as you try to get the PTO studs up and out of chassis, then the dials get in the way etc.etc. With the window “glass” removed, it’s a piece of cake. Now any later series C-line should have the window glass mounted between the front panel and the sub-panel, requiring removal of the front panel to get at its mounting screws.
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> YMMV!
>
> 73
> Peter
> VE3AX/7
>
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Hi Peter,

Whatever might work best for you is just fine...!

I just found that the task that might await you of getting inside the PTO---never-mind getting the shield can OFF of the circuit board!---daunting enough for me! H i Hi

~73~ de Eddy VE3CUI - VE3XZ

18799. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:08:28 UTC
From: <w1es1982@...>
Topic: 18777 Message: 18799

Actually, to get at all of the gears to clean them, you need to remove the entire unit.

These rigs are old enough where removing the front panel is a good thing, anyway, since you can clean it much more thoroughly.

I can get a front panel off in five minutes. There's no fussy orthoscopic surgery to put up with, either. All screwdriver work, aside from removing the wires from their connections underneath! (clip those rather than desoldering - the wires won't turn into melted messes that way).

YMMV...

Steve, W1ES/4

---- Eddy Swynar <deswynar@...> wrote:
>
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>
> >
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> > 73,
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> >
> >
>

18800. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:12:00 UTC
From: <w1es1982@...>
Topic: 18777 Message: 18800

No, the nasty battles arise when discussing cleaning procedures ;-)

Ducking...

W1ES

---- Eddy Swynar <deswynar@...> wrote:
>
> On 2014-02-22, at 10:57 AM, VE3AX/7 wrote:
>
> >
> > Not wishing to start and argument over this but I have never had much luck getting the PTO out of a dual-dial rig (C-line/SPR-4) without removing the dial window glass. The PTO shaft gets hung up on it as you try to get the PTO studs up and out of chassis, then the dials get in the way etc.etc. With the window “glass” removed, it’s a piece of cake. Now any later series C-line should have the window glass mounted between the front panel and the sub-panel, requiring removal of the front panel to get at its mounting screws.
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> >
> > YMMV!
> >
> > 73
> > Peter
> > VE3AX/7
> >
> >
>
>
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>
> Hi Peter,
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> Whatever might work best for you is just fine...!
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> ~73~ de Eddy VE3CUI - VE3XZ

>

18801. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:20:54 UTC
From: VE3AX/7
Topic: 18777 Message: 18801

HI Eddy:

How are things in the land of ice and snow and wind and freezing rain? I could probably ask Garey the same thing – three weeks ago I flew over NC and there was snow all the way to the South Carolina border!

Getting the PTO can off is certainly a different story – pretty easy to do in most rigs without surgery. I would think the R-4C with optional NB would require removal of the NB and maybe even the outboard mount. Fortunately most of my PTO adventures have centred around the gears, the dial;s, and the PTO front shaft bits.

I am still not happy with the PTO in one of the three SPR4's I have been working on the past couple of months. This one had damaged PTO mechanicals; fixed the main issue with it but looks like someone modified the front bearing area somehow – there's a washer in there that is preventing proper tightening of the shaft against the bearings, so there is a slight bit of up/down play that I can't tweak out, as if the washer is riding on the bearings rather than allowing the shaft to "centre up" between the bearings. Tightening the shaft just locks it up. I am thinking of just replacing that PTO with a spare.

As the PTO will need to come out for the third time I'll run a little experiment and see just what I can do without removing the front panel and/or the dial glass. I'll report my findings back here. There is plenty of room behind the PTO in the SPR-4 so it's a good one to experiment with. Of course things may be different in rigs with less open real estate.

73

Peter
VE3AX/7

From: Eddy Swynar
Sent: Saturday, February 22, 2014 8:05 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

On 2014-02-22, at 10:57 AM, VE3AX/7 wrote:

Not wishing to start and argument over this but I have never had much luck getting the PTO out of a dual-dial rig (C-line/SPR-4) without removing the dial window glass. The PTO shaft gets hung up on it as you try to get the PTO studs up and out of chassis, then the dials get in the way etc.etc. With the window "glass" removed, it's a piece of cake. Now any later series C-line should have the window glass mounted between the front panel and the sub-panel, requiring removal of the front panel to get at its mounting screws.

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YMMV!

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~73~ de Eddy VE3CUI - VE3XZ

18802. Upcoming Hamfest

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:28:00 UTC
From: Dan Galligan
Topic: 18802 Message: 18802

Just curious if anyone on the list is planning on attending the Hanging Judge Hamfest, in Ft. Smith, AR, the first weekend of April?
I expect to be there, selling some 4-Line gear, and assorted boat anchors, as well as some modern VHF/UHF gear. If anyone thinks they might be interested in going, here is the website:
http://www.hangingjudgehamfest.com
I am told by members of the sponsoring club, that there should be a great deal of classics, including Collins gear available.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

18803. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:33:44 UTC
From: Garey Barrell
Topic: 18777 Message: 18803

Just don't forget those %$%#$# washers behind the dress panel.......

And the little spring inside the copper shaft coupler on the Passband Tuner.......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w1es1982@... wrote:
> Actually, to get at all of the gears to clean them, you need to remove the entire unit.
>
> These rigs are old enough where removing the front panel is a good thing, anyway, since you can clean it much more thoroughly.
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>
> YMMV...
>
> Steve, W1ES/4
>
>
> ---- Eddy Swynar <deswynar@...> wrote:
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>>> Refer to the WB4HFN article about making the C-Line PTO "smooth and silky". Before you get there, you will need to take as many parts as you can from it and thoroughly scrub them in Simple Green, Crud Cutter or other serious surfactant, to remove all petroleum from those Nylon gears.
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>> ~73~ de Eddy VE3CUI - VE3XZ
>>>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>
>
>
> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7116 - Release Date: 02/22/14
>
>

18804. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:37:35 UTC
From: Garey Barrell
Topic: 18777 Message: 18804

Peter -

Whatever are you referring to!?!?!? It's 68 degrees and sunny!

(Of course we're getting snow by Wednesday.... :-( )

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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VE3AX/7 wrote:
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> HI Eddy:
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> three weeks ago I flew over NC and there was snow all the way to the South Carolina border!
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18805. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:44:06 UTC
From: VE3AX/7
Topic: 18777 Message: 18805

Garey:

Haven’t lost one for years! And managed to find a very close replacement fiber washer at Home Depot many moons ago, just in case. They are in my parts bin. I’m surprised Donnie, or Chris, or Mark haven’t got those in their stores yet. Maybe they are too easy to find?

Frankly, the things that usually give me grief are the older non-setscrew knobs and that little spring steel piece that sits inside and breaks in half, half the time. Like the washers they have an automatic homing device in them that seek out the crack between the floor and the bench! Sorta like the auto-migration of that antenna switch on the side of the TR’s.

Now, those little brass rivets on the dials.....!!!! Hoo boy!

73
Peter
VE3AX/7

From: Garey Barrell
Sent: Saturday, February 22, 2014 8:33 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

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>> I've had the PTO removed & disassembled from my T-4X transmitter several times here, & doing so most certainly never necessitated anything as drastic as the removal of the front panel...
>>
>> It CAN be done strictly as an "inside job", as long as you unsolder the 3(?) wires linking the PTO to the rest of the transmitter (they come out of the PTO enclosure at the front / bottom of the shield can), and you remove the tubes immediately behind the enclosure to facilitate pulling it back once all of the fasteners are removed (I believe there are 4).
>>
>> You can see the progressive steps required in removal, if you study it logically & proceed accordingly.
>>
>> But why throw the complication of front panel removal into the mix, too...?! It can be a

scary enough / daunting assignment on its own...
>>
>> ~73~ de Eddy VE3CUI - VE3XZ
>>>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>
>
>
> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7116 - Release Date: 02/22/14
>
>

18806. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 16:44:28 UTC
From: Eddy Swynar
Topic: 18777 Message: 18806

On 2014-02-22, at 11:20 AM, VE3AX/7 wrote:

>
> HI Eddy:
>
> How are things in the land of ice and snow and wind and freezing rain? I could probably ask Garey the same thing – three weeks ago I flew over NC and there was snow all the way to the South Carolina border!
>
> Getting the PTO can off is certainly a different story – pretty easy to do in most rigs without surgery. I would think the R-4C with optional NB would require removal of the NB and maybe even the outboard mount. Fortunately most of my PTO adventures have centred around the gears, the dial;s, and the PTO front shaft bits.
>
> I am still not happy with the PTO in one of the three SPR4's I have been working on the past couple of months. This one had damaged PTO mechanicals; fixed the main issue with it but looks like someone modified the front bearing area somehow – there's a washer in there that is preventing proper tightening of the shaft against the bearings, so there is a slight bit of up/down play that I can't tweak out, as if the washer is riding on the bearings rather than allowing the shaft to "centre up" between the bearings. Tightening the shaft just locks it up. I am thinking of just replacing that PTO with a spare.
>
> As the PTO will need to come out for the third time I'll run a little experiment and see just what I can do without removing the front panel and/or the dial glass. I'll report my findings back here. There is plenty of room behind the PTO in the SPR-4 so it's a good one to experiment with. Of course things may be different in rigs with less open real estate.
>
> 73
>
> Peter
> VE3AX/7

Hi Peter,

Thanks for thinking of us poor easterners out here locked in the throes of what feels like a permanent new Ice Age...!

This past week was a remarkable change from before in that there was no new snow, & the temperatures actually reached the high 30's on the "F" scale---but the currently high winds fortell of colder weather to come, with a drop all the way to 5F by Friday (sigh!).

My only trouble with Drake PTOs has been with (A) poor solder joints, and, (B) value-changing of some of the components. But considering the fact that these things are fast approaching the half-century mark in terms of age, I'd say that approaches the level of "...simple maintenance", & little more!

Enjoy working on those rigs, Peter, & celebrate the fact that you have the ability to do so: we are fast becoming an "extinct species" here, as throw-away appliances take-over the realm of Ham radio...

~73~ de Eddy VE3CUI - VE3XZ

18807. Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 17:04:34 UTC
From: Ed Purvis
Topic: 18782 Message: 18807

Thanks for all the offers gents. I have some material located.

73,
Ed

18808. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 18:30:12 UTC
From: geoffrey mendelson
Topic: 18777 Message: 18808

On 2/22/2014 6:33 PM, Garey Barrell wrote:
>
> Just don't forget those %$%#$# washers behind the dress panel.......
>
> And the little spring inside the copper shaft coupler on the Passband
> Tuner.......
>

Joining this discussion late I want to point out that I recently repaired a stuck dial in an SPR-4 and documented my actions on this list. Peter, others and I had a fairly long discussion about what I encountered, and other SPR-4's. You can find it in the archive.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18809. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 19:04:48 UTC
From: Jim Shorney
Topic: 18777 Message: 18809

On Sat, 22 Feb 2014 08:44:06 -0800, VE3AX/7 wrote:

>an automatic homing device in them that seek out the crack between the floor and the bench

You've got it wrong. There's a warp zone a half inch above the floor that leads
to the planet of lost socks. Lots of things go there.

73

-Jim
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris,
"The Doctor's Wife"

18810. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 20:06:53 UTC
From: Richard Knoppow
Topic: 18777 Message: 18810

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 11:04 AM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

> On Sat, 22 Feb 2014 08:44:06 -0800, VE3AX/7 wrote:
>
>>an automatic homing device in them that seek out the crack
>>between the floor and the bench
>
>
> You've got it wrong. There's a warp zone a half inch above
> the floor that leads
> to the planet of lost socks. Lots of things go there.
>
> 73
>
> -Jim
> NU0C
>

I am convinced there is a parallel universe with enormous mountains of screws, nuts, socks, springs, collar buttons, nickels and dimes, twenty dollar bills, and etc, etc. It is led to by a one-way portal that is invisible to humans (but maybe not cats). I also think I probably have fairies in my back yard; they get curious about small objects and borrow them to investigate. I often find these later in places I KNOW I have already looked. We just think we live in a normal universe, if we saw it for what it really is we would run screaming like Bette Davis in "Jezebel".

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18811. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 21:04:54 UTC
From: Jim Shorney
Topic: 18777 Message: 18811

Of course the cats can see it. That's a given. Do you really think that they are FROM this planet?

The fairies have that Swan (Siltronix) VFO dial that went missing here several years ago. I have not been able to convince them to return it yet. I think they have that fiberglass rod that I was looking for yesterday too. I suppose maybe they needed it to pitch a tent.

73

-Jim
NU0C

On Sat, 22 Feb 2014 12:06:53 -0800, Richard Knoppow wrote:

>I am convinced there is a parallel universe with
>enormous mountains of screws, nuts, socks, springs, collar
>buttons, nickels and dimes, twenty dollar bills, and etc,
>etc. It is led to by a one-way portal that is invisible to
>humans (but maybe not cats). I also think I probably have
>fairies in my back yard; they get curious about small
>objects and borrow them to investigate. I often find these
>later in places I KNOW I have already looked. We just think
>we live in a normal universe, if we saw it for what it
>really is we would run screaming like Bette Davis in
>"Jezebel".

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18812. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 21:21:27 UTC
From: Richard Knoppow
Topic: 18777 Message: 18812

```
----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 1:04 PM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
troubles I get myself into

>
> Of course the cats can see it. That's a given. Do you
> really think that they
> are FROM this planet?
>
> The fairies have that Swan (Siltronix) VFO dial that went
> missing here several
> years ago. I have not been able to convince them to return
> it yet. I think they
> have that fiberglass rod that I was looking for yesterday
> too. I suppose maybe
> they needed it to pitch a tent.
>
> 73
>
> -Jim
> NU0C

Leave something else interesting around, they may
trade. Sometimes, if you ask nicely and explain the thing
is vital they will return it. I sound like I really believe
this stuff. Maybe I do.
For cat people try the detective series "The Cat
Who..." Especially if you like Siamese.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...
```

18813. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 21:29:39 UTC
From: vacuuminded2@...
Topic: 18777 Message: 18813

You're both wrong. That 1/2" above the floor where small parts instantly vanish into thin air is not a warp zone. It is the "Flourth dimension".

<que theme music>

Chris

Sent from my outdated iPhone wireless thingy

On Feb 22, 2014, at 1:04 PM, "Jim Shorney" <jshorney@...> wrote:

> On Sat, 22 Feb 2014 08:44:06 -0800, VE3AX/7 wrote:
>
> >an automatic homing device in them that seek out the crack between the floor and the bench
>
> You've got it wrong. There's a warp zone a half inch above the floor that leads
> to the planet of lost socks. Lots of things go there.
>
> 73
>
> -Jim
> NU0C
>
> --
> The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

18814. Drake R4/T4/TR knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 21:47:37 UTC
From: <w5rkl@...>
Topic: 18814 Message: 18814

I need "1" Drake R4A knob for the volume control. The knob on the receiver is not original Drake so I would like to replace it with a Drake R4/T4/TR<any> knob. If you have one you don't need, let me know via private email.

73
Mike W5RKL

18815. RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 21:49:17 UTC
From: <mark@...>
Topic: 18782 Message: 18815

Adorama Camera has Lee Lagoon Blue (172) 24x21" Gel Filter Sheets (High Temperature) for $8.00.

http://www.adorama.com/LE172SHT.html http://www.adorama.com/LE172SHT.html

Mark / K6MJD / San Diego

18816. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 22:02:39 UTC
From: Jim Shorney
Topic: 18777 Message: 18816

I've tried offering them cookies, that's been rumored to work. I have also tried politely asking. Oh well.

Cat books.... An amusing quick read is "Cat-A-Lyst" by Alan Dean Foster. If you are into epics, à la "Watership Down", look for "Tailchaser's Song" by Tad Williams. Highly recommended.

73

-Jim
NU0C

On Sat, 22 Feb 2014 13:21:27 -0800, Richard Knoppow wrote:

>
>----- Original Message -----
>From: "Jim Shorney" <jshorney@...>
>To: <DrakeRadio@yahoogroups.com>
>Sent: Saturday, February 22, 2014 1:04 PM
>Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
>troubles I get myself into
>
>
>>
>> Of course the cats can see it. That's a given. Do you
>> really think that they
>> are FROM this planet?
>>
>> The fairies have that Swan (Siltronix) VFO dial that went
>> missing here several
>> years ago. I have not been able to convince them to return
>> it yet. I think they
>> have that fiberglass rod that I was looking for yesterday
>> too. I suppose maybe
>> they needed it to pitch a tent.
>>
>> 73
>>
>> -Jim
>> NU0C
>
> Leave something else interesting around, they may
>trade. Sometimes, if you ask nicely and explain the thing
>is vital they will return it. I sound like I really believe
>this stuff. Maybe I do.

> For cat people try the detective series "The Cat
>Who..." Especially if you like Siamese.
>
>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

18817. Re: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 22:20:34 UTC
From: Mark Gilger
Topic: 18782 Message: 18817

Donny sells it at 2B Radio Parts.

http://www.2bradioparts.com/page12.html

Mark, WB0IQK

18818. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-22 23:35:53 UTC
From: Bernie
Topic: 1054 Message: 18818

Robert,
Several times I've accused Garey of being a retired professor from an engineering department of some college (MIT comes to mind). I have learned more about how receivers work, even if they're not Drakes, just from his explanations....something I could stare at a schematic all day long and not come to the same thoughtful conclusions!!
A real GEM on this list!!

Bernie in ND
WDØGMD

----- Original Message -----
From: Robert Logan
To: DrakeRadio@yahoogroups.com
Cc: DrakeRadio@yahoogroups.com
Sent: Friday, February 21, 2014 3:38 PM
Subject: Re: [DrakeRadio] T-4XC problem

Dang, you're clear! You must have been a professional technical writer at one time.

Thank you very much, Gary. Lots to check on but clear as a bell. Now if I could only find CR15....

I need your CD. Skinflint that I am, I gotta go ahead, unglue my wallet, and order it. Bob, NZ5A

Sent from my iPhone

On Feb 21, 2014, at 9:22 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK. It's NOT V10. Sounds like the V9a audio oscillator ain't!!

The ~ 1kHz audio note generated here is 'keyed' by CR15, and amplified by V9b. Output to the BAL MOD for TUNE operation
is from the Cathode of V9b, and the SIDETONE comes from the Plate of V9b.

A shorted CR15 would give the symptoms you describe, as it would prevent the audio signal, IF it's there, from reaching
V9b. The V9a oscillation is controlled by switching in a phase shift network, R97, 98 and 99 along with associated
capacitors. Here the most likely problem is dirty switch contacts on the FUNCTION switch, on the front side of the
fourth wafer from the panel.

The signals out of V9b are MISSING, either because V9a is not generating them, or they're being prevented from reaching
V9b, most likely by a shorted CR15.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Gary, thanks for the guidance.
>
> TUNE works in the sense that I can peak the output with the RF TUNE and PLATE controls as indicated in an S meter on
> the R4B but there is no output showing even in a QRP wattmeter (which is known good). When I switch to CW and send,
> there is full normal output on the wattmeter (this time using the W4 wattmeter (also known good). If I try to hold a
> long dash, it still drops out quickly but sending a string of characters like my call or RST shows full output.
>
> Being able to get full output when sending CW but no watts out in TUNE tells me something but I don't know what
> exactly. Adjusting GAIN does vary the output in both transmit and TUNE (on the S meter).
>
> Another in this fine group suggested it might be a bad 6EV7.
> Sent from my iPhone
>
> On Feb 20, 2014, at 9:36 PM, Garey Barrell <k4oah@... <mailto:k4oah@mindspring.com>> wrote:
>
> Bob -
>
> V9 is converted to a phase shift audio oscillator in CW. This is the SIDETONE, and the tone used in TUNE mode. IF TUNE
> works ok, the the problem is most likely a shorted CR15. Less likely is R84/85. The reason it pulls in briefly is the
> C115/CR17 network which 'yanks' the VOX on quickly to preserve the first 'dit' or the first syllable on SSB by sending a
> pulse of current directly to the Grid of V10B.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> > My T-4XC recently developed a problem of unkeying quickly on SPOT and when sending a long dash on CW transmit. It
> only occurs on CW. SSB and AM spot and transmit are as per usual. The CW DELAY pot has

little effect on how quickly it
> unkeys on SPOT or the long dash. In addition, there is no sidetone at any settings of the antivox, VOX gain, or CW
> delay controls. The lack of sidetone occurred at the same time as its unkeying quickly in CW SPOT or CW transmit. When
> sending faster CW, the rig keys, stays on, and drops out as it should.
> >
> > I've substituted 12AX7s (V9) and antivox cables but the problem persists. I'm thinking maybe C107 or CR15 might be
> the culprits but I don't why it would be fine in faster transmissions if they were bad. Maybe it's even a dirty relay?
> >
> > Any advice would be greatly appreciated. Bob, NZ5A
> >
> >
>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7111 - Release Date: 02/20/14
>

18819. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 00:20:09 UTC
From: Bob Loving
Topic: 18777 Message: 18819

I have a Black Hole in my hamshack... and the rest of the house for that matter. Everything disappears into it only to reappear when you least expect.

Bob K9JU

>_____
> From: "vacuuminded2@yahoo.com" <vacuuminded2@...>
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Sent: Saturday, February 22, 2014 3:29 PM
>Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into
>
>
>
>
>You're both wrong. That 1/2" above the floor where small parts instantly vanish into thin air is not a warp zone. It is the "Flourth dimension".
>
>
><que theme music>
>
>
>Chris
>
>
>
>
>Sent from my outdated iPhone wireless thingy
>
>On Feb 22, 2014, at 1:04 PM, "Jim Shorney" <jshorney@...> wrote:
>
>
>
>
>>On Sat, 22 Feb 2014 08:44:06 -0800, VE3AX/7 wrote:
>>
>>>>an automatic homing device in them that seek out the crack between the floor and the bench
>>
>>You've got it wrong. There's a warp zone a half inch above the floor that leads
>>to the planet of lost socks. Lots of things go there.
>>
>>73
>>
>>-Jim
>>NU0C

>>
>>--
>>The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>>
>>
>
>
>

18820. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 00:24:28 UTC
From: James Scribner
Topic: 1054 Message: 18820

Bob, NZ5A
Bob, the CD for your Drake will be the second best investment you can make, following the Drake of course! I resent purchased one from Gary and it it just packed with valuable info and *color* pictures. This is an unsolicited comment, just has helped me on my TR-4 immensely an thought the "Thank you Gary" was over due!

Jim, W5SWM

18821. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 00:35:59 UTC
From: john
Topic: 18777 Message: 18821

At 11:33 AM 2/22/2014, Garey Barrell wrote:
>Just don't forget those %$%#$# washers behind the dress panel.....

Ah, the little white spacers which jump into space, never to be seen again.....

John K5MO

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

18822. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 01:54:31 UTC
From: Jim Shorney
Topic: 18777 Message: 18822

The Faeries didn't think that was very funny....

73

-Jim
NU0C

On Sat, 22 Feb 2014 15:29:39 -0600, vacuuminded2@... wrote:

>You're both wrong. That 1/2" above the floor where small parts instantly vanish into thin air is not a warp zone. It is the "Flourth dimension".
>
><que theme music>
>
>Chris

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

18823. Why?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 02:41:27 UTC
From: Steve Wedge
Topic: 18823 Message: 18823

Good grief - I just won another auction for another R-4A. The price was too good to pass up. It's an 11-tube, so it will be interesting to A/B it with the 13 I have here at the moment.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18824. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 02:47:54 UTC
From: Richard Knoppow
Topic: 18777 Message: 18824

```
----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 5:54 PM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
troubles I get myself into

>
> The Faeries didn't think that was very funny....
>
> 73
>
> -Jim
> NU0C
>
> On Sat, 22 Feb 2014 15:29:39 -0600, vacuuminded2@...
> wrote:
>
>>You're both wrong. That 1/2" above the floor where small
>>parts instantly vanish into thin air is not a warp zone.
>>It is the "Flourth dimension".
>>
>><que theme music>
>>
>>Chris
>
The fairies around here are ROTFL (and grabbing stuff as
they go) but they think it should be the floorth dimension.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...
```

18825. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 02:51:55 UTC
From: Richard Knoppow
Topic: 18782 Message: 18825

----- Original Message -----
From: <mark@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 1:49 PM
Subject: [DrakeRadio] RE: Drake Blue Filter Material

> Adorama Camera has Lee Lagoon Blue (172) 24x21" Gel Filter
> Sheets (High Temperature) for $8.00.
>
> http://www.adorama.com/LE172SHT.html
> http://www.adorama.com/LE172SHT.html
>
>
>
> Mark / K6MJD / San Diego
>
I think its available from any of the larger photo
equipment suppliers. B&H came up in a google search and I
suspect Freestyle has it too. A 24x21 inch sheet is
probably a lifetime supply. Its even possible you might be
able to get a large enough sample from Lee to do a dial and
meter.
BTW, I love the names of some of the colors.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18826. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 03:14:35 UTC
From: Jim Shorney
Topic: 18782 Message: 18826

I got a chunk from an eBay seller, cheap and easy. Interestingly, there are two flavors of #172, the Lee and the Rosco E-Color. You can see both at about the middle of the page below, generated by the hex codes of the online samples taken directly from the respective web sites.

http://radiojim.exofire.net/pages/blue.html

73

-Jim
NU0C

On Sat, 22 Feb 2014 18:51:55 -0800, Richard Knoppow wrote:

>
>----- Original Message -----
>From: <mark@...>
>To: <DrakeRadio@yahoogroups.com>
>Sent: Saturday, February 22, 2014 1:49 PM
>Subject: [DrakeRadio] RE: Drake Blue Filter Material
>
>
>> Adorama Camera has Lee Lagoon Blue (172) 24x21" Gel Filter
>> Sheets (High Temperature) for $8.00.
>>
>> http://www.adorama.com/LE172SHT.html
>> http://www.adorama.com/LE172SHT.html
>>
>>
>>
>> Mark / K6MJD / San Diego
>>
> I think its available from any of the larger photo
>equipment suppliers. B&H came up in a google search and I
>suspect Freestyle has it too. A 24x21 inch sheet is
>probably a lifetime supply. Its even possible you might be
>able to get a large enough sample from Lee to do a dial and
>meter.
> BTW, I love the names of some of the colors.
>
>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL
>dickburk@...

>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18827. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 04:21:38 UTC
From: vacuuminded2@...
Topic: 18777 Message: 18827

I keep going back and forth between the two spellings.. I think you are right though, Richard... "The Floorth Dimension" it is!

Every time I say it, I hear the Twilight Zone theme and introduction-

"There is a a floorth [5th] dimension beyond that which is known to man. It is a dimension as vast as space and as timeless as infinity. It is the middle ground between floor and bench, between science and superstition, and it lies between the pit of a man's fears and the summit of knowledge. This is the dimension of lost parts. It is an area which we call, ..." We'll, you know the rest.

Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Feb 22, 2014, at 8:47 PM, "Richard Knoppow" <1oldlens1@...> wrote:

>
> ----- Original Message -----
> From: "Jim Shorney" <jshorney@...m>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Saturday, February 22, 2014 5:54 PM
> Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
> troubles I get myself into
>
> >
> > > The Faeries didn't think that was very funny....
> > >
> > > 73
> > >
> > > -Jim
> > > NU0C
> > >
> > > On Sat, 22 Feb 2014 15:29:39 -0600, vacuuminded2@...
> > > wrote:
> > >
> > > >>You're both wrong. That 1/2" above the floor where small
> > > >>parts instantly vanish into thin air is not a warp zone.
> > > >>It is the "Flourth dimension".
> > > >>
> > > >><que theme music>
> > > >>
> > > >>Chris
> > >
> > The fairies around here are ROTFL (and grabbing stuff as

> they go) but they think it should be the floorth dimension.
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...m
>
>

18828. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 06:09:23 UTC
From: Joe - W7RKN
Topic: 18782 Message: 18828

The easiest place to find the gel, is at any theatrical lighting supply shop. BTW..Lee makes a heavy duty sheet of this color as well....I am pretty sure that is what my sheet was, that I purchased..locally, for $5.00, I think it was. pretty durable stuff.

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material

>
> I got a chunk from an eBay seller, cheap and easy. Interestingly, there
> are two
> flavors of #172, the Lee and the Rosco E-Color. You can see both at about
> the
> middle of the page below, generated by the hex codes of the online samples
> taken directly from the respective web sites.
>
> http://radiojim.exofire.net/pages/blue.html

18829. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 06:33:15 UTC
From: Richard Knoppow
Topic: 18777 Message: 18829

----- Original Message -----
From: <vacuuminded2@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 8:21 PM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

I keep going back and forth between the two spellings.. I think you are right though, Richard... "The Floorth Dimension" it is!
There is a pun hiding here...
I think there are several parallel dimentions: the one partly occupied by cats; the one things vanish into when dropped off the table (I have seen them fade away as the fell); the one reported on by TV news. Actually _nothing_ ever happens, it's all made up by the boys in the back room. If they told you that nothing was happening you would have to turn off your TV and go outside (except in the north-east where entropy is increasing very rapidly).

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18830. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 06:33:46 UTC
From: Jim Shorney
Topic: 18782 Message: 18830

Easy is relative. We didn't have anyone here in Lincoln that carried it, so I would have had to either try to chase down someone who happened to have some on hand or (maybe) drive to Omaha. Ordering from a reputable eBay vendor was only a few mouse clicks worth of effort and I didn't even have to leave my chair. What I got delivered to my door was a big sheet packaged in a sturdy shipping tube that I use to store the extra. As I recall, it was only around 8 bucks. I don't know if it's "heavy duty" or not, but it scarcely matters in this application. This stuff leads an easy life in front of a puny radio lamp.

73

-Jim
NU0C

On Sat, 22 Feb 2014 22:09:23 -0800, Joe - W7RKN wrote:

>The easiest place to find the gel, is at any theatrical lighting supply
>shop. BTW..Lee makes a heavy duty sheet of this color as well....I am
>pretty sure that is what my sheet was, that I purchased..locally, for $5.00,
>I think it was. pretty durable stuff.
>
>
>----- Original Message -----
>From: "Jim Shorney" <jshorney@...>
>Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material
>
>
>>
>> I got a chunk from an eBay seller, cheap and easy. Interestingly, there
>> are two
>> flavors of #172, the Lee and the Rosco E-Color. You can see both at about
>> the
>> middle of the page below, generated by the hex codes of the online samples
>> taken directly from the respective web sites.
>>
>> http://radiojim.exofire.net/pages/blue.html
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18831. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 06:41:54 UTC
From: Richard Knoppow
Topic: 18777 Message: 18831

My statement about entropy may not be correct, I meant
that the temperature is approaching absolute zero and will
eventually get there. You need to have a good parka and
thermal underwear and something to cover your face and ears
if you go out. Leave the snow where it is, better to turn
on the TV and let the cable news people shovel it.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18832. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 07:48:48 UTC
From: <toptyp19@...>
Topic: 18777 Message: 18832

Richard-
Put down the wine glass and go to bed.
See you in the morning.
73, Joe.

18833. TR-4C TR-4CW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 07:58:01 UTC
From: k7mks@...
Topic: 18833 Message: 18833

What is an acceptable crystal calibrator S-meter reading on 80, 20, and 10 meters. A friends -C and my -CW/RIT have widely different readings.

Thanks joe k7mks

18834. Re: [DrakeRadio] TR-4C TR-4CW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 10:39:02 UTC
From: vacuuminded2@...
Topic: 18833 Message: 18834

Freshly aligned and healthy? Well over S9 on everything but 10 and 15, S7 is all I have ever seen above 15 on the TR-4 in my car.

Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Feb 23, 2014, at 1:58 AM, k7mks@... wrote:

>
> What is an acceptable crystal calibrator S-meter reading on 80, 20, and 10 meters. A friends -C and my -CW/RIT have widely different readings.
>
> Thanks joe k7mks
>

18835. TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 12:25:54 UTC
From: <k4mt@...>
Topic: 18835 Message: 18835

I had a squirrel chew my feedline. I keyed up the TR-7 to make a call and saw high SWR on first voice peak and shut it down.

Now TX is fine on all bands with normal power, squirrel has met his maker, and RX sense has dropped from less than .2 microvolt for 10 db to 10 microvolts. Where do you think damage might have been done. I do not have extenders so repair might be difficult. I

Gary K4MT

18836. 2AQ Qmult/speaker for sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 14:19:12 UTC
From: George- K4GM
Topic: 18836 Message: 18836

Drake 2AQ for sale. Matches 2B receiver. Works well. Looks good.
Pictures available. Price: $150 firm plus shipping.

George K4GM

18837. Re: [DrakeRadio] TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 14:22:42 UTC
From: Leon Zebrick
Topic: 18835 Message: 18837

I would check the infamous PIN diodes as a start for any TR7 receive sensitivity problem.

Sent from my iPhone

On Feb 23, 2014, at 6:25 AM, <k4mt@yahoo.com> wrote:

> I had a squirrel chew my feedline. I keyed up the TR-7 to make a call and saw high SWR on first voice peak and shut it down.
>
>
> Now TX is fine on all bands with normal power, squirrel has met his maker, and RX sense has dropped from less than .2 microvolt for 10 db to 10 microvolts. Where do you think damage might have been done. I do not have extenders so repair might be difficult. I
>
> Gary K4MT
>

18838. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 14:51:30 UTC
From: Bernie
Topic: 18777 Message: 18838

For what it's worth, my wife, a former English & Literature teacher, doubled over laughing when I explain this to her. She says that "the flooth dimension should become has popular and the renaming of the pound sign into 'hashtag', becuase the 'floorth dimension' makes much more sense!!"
I concur!! Especially when a small screw is dropped on shag carpet and not even a high-strength magnet can ferret it out.

Bernie in ND
WDØGMD

----- Original Message -----
From: Richard Knoppow
To: DrakeRadio@yahoogroups.com
Sent: Sunday, February 23, 2014 12:33 AM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

----- Original Message -----
From: <vacuuminded2@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, February 22, 2014 8:21 PM
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

I keep going back and forth between the two spellings.. I think you are right though, Richard... "The Floorth Dimension" it is!
There is a pun hiding here...
I think there are several parallel dimentions: the one partly occupied by cats; the one things vanish into when dropped off the table (I have seen them fade away as the fell); the one reported on by TV news. Actually _nothing_ ever happens, it's all made up by the boys in the back room. If they told you that nothing was happening you would have to turn off your TV and go outside (except in the north-east where entropy is increasing very rapidly).

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18839. RE: TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 15:11:13 UTC
From: <k4mt@...>
Topic: 18835 Message: 18839

Problem found. The radio Gods have decided to give me a Challenge. I discovered that the cailibrator signal was about S9 as normal. After tracing things everywhere I found on the back panel where to RX antenna ia jumpered between two RCA jacks had never been soldered from the factory. The contact on the back of the RCA plug was still virgin with the wires neatly wrapped through the solder hold but no solder added. The radio has operated all these years and no receive problem had shown up until today. Obviously the radio Gods moved the wires overnight to ruin my day as it was working when I shut it down last night. Who would have thought this would happen at the same time I go an antenna short from the deceased squirrel.

Guess this one slipped by Drake QC

Gary K4MT.

18840. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 16:13:56 UTC
From: Garey Barrell
Topic: 18782 Message: 18840

Jim -

Agreed!! (Now THAT's news.... :-))

The 'heavy duty' is really 'Heat Resistant' which IS of a little more interest to us. (Now I feel better....)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> Easy is relative. We didn't have anyone here in Lincoln that carried it, so I
> would have had to either try to chase down someone who happened to have some on
> hand or (maybe) drive to Omaha. Ordering from a reputable eBay vendor was only
> a few mouse clicks worth of effort and I didn't even have to leave my chair.
> What I got delivered to my door was a big sheet packaged in a sturdy shipping
> tube that I use to store the extra. As I recall, it was only around 8 bucks. I
> don't know if it's "heavy duty" or not, but it scarcely matters in this
> application. This stuff leads an easy life in front of a puny radio lamp.
>
> 73
>
> -Jim
> NU0C
>
> On Sat, 22 Feb 2014 22:09:23 -0800, Joe - W7RKN wrote:
>
>> The easiest place to find the gel, is at any theatrical lighting supply
>> shop. BTW..Lee makes a heavy duty sheet of this color as well....I am
>> pretty sure that is what my sheet was, that I purchased..locally, for $5.00,
>> I think it was. pretty durable stuff.
>>
>>
>> ----- Original Message -----
>> From: "Jim Shorney" <jshorney@...>
>> Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material
>>
>>
>>> I got a chunk from an eBay seller, cheap and easy. Interestingly, there
>>> are two
>>> flavors of #172, the Lee and the Rosco E-Color. You can see both at about
>>> the

>>> middle of the page below, generated by the hex codes of the online samples
>>> taken directly from the respective web sites.
>>>
>>> http://radiojim.exofire.net/pages/blue.html
>>

18841. Re: [DrakeRadio] RE: TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 16:45:28 UTC
From: Richard Knoppow
Topic: 18835 Message: 18841

----- Original Message -----
From: <k4mt@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 23, 2014 7:11 AM
Subject: [DrakeRadio] RE: TR-7 poor Receive

> Problem found. The radio Gods have decided to give me a
> Challenge. I discovered that the cailibrator signal was
> about S9 as normal. After tracing things everywhere I
> found on the back panel where to RX antenna ia jumpered
> between two RCA jacks had never been soldered from the
> factory. The contact on the back of the RCA plug was still
> virgin with the wires neatly wrapped through the solder
> hold but no solder added. The radio has operated all
> these years and no receive problem had shown up until
> today. Obviously the radio Gods moved the wires overnight
> to ruin my day as it was working when I shut it down last
> night. Who would have thought this would happen at the
> same time I go an antenna short from the deceased
> squirrel.
>
> Guess this one slipped by Drake QC
>
>
> Gary K4MT.
>
I've found wrapped but unsoldered connections several
times, once in my R4B and a couple of times in General Radio
instruments, and elsewhere. All of this stuff got through
the manufacturer's QC and worked for decades.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18842. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 16:49:23 UTC
From: Richard Knoppow
Topic: 18782 Message: 18842

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 23, 2014 8:13 AM
Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material

> Jim -
>
> Agreed!! (Now THAT's news.... :-))
>
> The 'heavy duty' is really 'Heat Resistant' which IS of a
> little more interest to us. (Now I feel better....)
>
> 73, Garey - K4OAH
> Glen Allen, VA

Lee describes their lighting filters as heat resistant,
see their web page. These filters are intended for use on
high powered motion picture and stage lighting instruments
including carbon arc (not sure they are used any more) and
xenon arc lamps.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18843. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 16:50:12 UTC
From: Jim Shorney
Topic: 18782 Message: 18843

Yep, it's probably only relevant if you want to change the color of the glow from the finals. The lamps this gel is used with are high power stuff, and generate a lot of heat. Much more than a #47 or #53. The large spots have cooling fans in them (pulling air OUT, I'm sure). The gel also has to hold up to being rotated in and out quickly to change colors during performance.

I've actually found that I need to stack two layers of 172 to get closer to an original filter. That's my "heavy duty".

Agreeing with me is good for your blood pressure.... :D

73

-Jim
NU0C

On Sun, 23 Feb 2014 11:13:56 -0500, Garey Barrell wrote:

>Jim -
>
>Agreed!! (Now THAT's news.... :-))
>
>The 'heavy duty' is really 'Heat Resistant' which IS of a little more interest to us. (Now I feel better....)
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
>> Easy is relative. We didn't have anyone here in Lincoln that carried it, so I
>> would have had to either try to chase down someone who happened to have some on
>> hand or (maybe) drive to Omaha. Ordering from a reputable eBay vendor was only
>> a few mouse clicks worth of effort and I didn't even have to leave my chair.
>> What I got delivered to my door was a big sheet packaged in a sturdy shipping
>> tube that I use to store the extra. As I recall, it was only around 8 bucks. I
>> don't know if it's "heavy duty" or not, but it scarcely matters in this
>> application. This stuff leads an easy life in front of a puny radio lamp.
>>
>> 73
>>
>> -Jim
>> NU0C

>>
>> On Sat, 22 Feb 2014 22:09:23 -0800, Joe - W7RKN wrote:
>>
>>> The easiest place to find the gel, is at any theatrical lighting supply
>>> shop. BTW..Lee makes a heavy duty sheet of this color as well....I am
>>> pretty sure that is what my sheet was, that I purchased..locally, for $5.00,
>>> I think it was. pretty durable stuff.
>>>
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>>> ----- Original Message -----
>>> From: "Jim Shorney" <jshorney@...>
>>> Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material
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>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18844. Re: [DrakeRadio] RE: TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 17:04:28 UTC
From: Bob Loving
Topic: 18835 Message: 18844

Goes to show you what my dad, although never a ham, taught me early on: Make a good mechanical connection before soldering. Yes, a bit difficult to do with PC boards but for point to point wiring like the 4-lines, etc., a "point" well taken.

Bob K9JU

>_____
> From: Richard Knoppow <1oldlens1@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Sunday, February 23, 2014 10:45 AM
>Subject: Re: [DrakeRadio] RE: TR-7 poor Receive
>
>
>
>
>
>----- Original Message -----
>From: <k4mt@...>
>To: <DrakeRadio@yahoogroups.com>
>Sent: Sunday, February 23, 2014 7:11 AM
>Subject: [DrakeRadio] RE: TR-7 poor Receive
>
>> Problem found. The radio Gods have decided to give me a
>> Challenge. I discovered that the cailibrator signal was
>> about S9 as normal. After tracing things everywhere I
>> found on the back panel where to RX antenna ia jumpered
>> between two RCA jacks had never been soldered from the
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>> virgin with the wires neatly wrapped through the solder
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>> these years and no receive problem had shown up until
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>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL
>dickburk@...m.com
>
>
>
>
>

18845. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 17:29:10 UTC
From: Garey Barrell
Topic: 18782 Message: 18845

Yeah, right......

From Lee's site

172 Lagoon Blue
Accurate and consistent colour from batch to batch.
Available as a High Temperature filter.

"Designed to withstand hot light sources"

Does NOT indicate whether it's 'mechanical' (melting) or perhaps more resistant to fading.
The price differential is
small enough that it's worth trying. ($8/sheet v $10/sheet from one dealer)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> Yep, it's probably only relevant if you want to change the color of the glow
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> I've actually found that I need to stack two layers of 172 to get closer to an
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>
> Agreeing with me is good for your blood pressure.... :D
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> -Jim
> NU0C
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>
> On Sun, 23 Feb 2014 11:13:56 -0500, Garey Barrell wrote:
>
>> Jim -
>>
>> Agreed!! (Now THAT's news.... :-))
>>
>> The 'heavy duty' is really 'Heat Resistant' which IS of a little more interest to us.
(Now I feel better....)

>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> Jim Shorney wrote:
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>>> 73
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>>> -Jim
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>>> On Sat, 22 Feb 2014 22:09:23 -0800, Joe - W7RKN wrote:
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>>>> pretty sure that is what my sheet was, that I purchased..locally, for $5.00,
>>>> I think it was. pretty durable stuff.
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>>>> ----- Original Message -----
>>>> From: "Jim Shorney" <jshorney@...>
>>>> Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material
>>>>
>>>>
>>>>> I got a chunk from an eBay seller, cheap and easy. Interestingly, there
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>>>>>
>>>>> http://radiojim.exofire.net/pages/blue.html
>>
>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain

3750, IBM PS/2 - all vintage, all the time!
>
> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
>
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> ------------------------------------
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> Yahoo Groups Links
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> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7117 - Release Date: 02/22/14
>
>

18846. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 18:00:34 UTC
From: Jim Shorney
Topic: 18782 Message: 18846

Possibly both. Fading and melting would both be inherent risks in bigass lights.

Wrap a chunk around one of your JB6s and let us know how it holds up. Or maybe a 3-500z. Now there's a thought. Finally, a way to get a blue glow from an L-4B!

73

-Jim
NU0C

On Sun, 23 Feb 2014 12:29:10 -0500, Garey Barrell wrote:

>"Designed to withstand hot light sources"
>
>Does NOT indicate whether it's 'mechanical' (melting) or perhaps more resistant to fading.

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18847. Re: [DrakeRadio] RE: Drake Blue Filter Material

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 18:38:11 UTC
From: Richard Knoppow
Topic: 18782 Message: 18847

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, February 23, 2014 9:29 AM
Subject: Re: [DrakeRadio] RE: Drake Blue Filter Material

> Yeah, right......
>
> From Lee's site
>
> 172 Lagoon Blue
> Accurate and consistent colour from batch to batch.
> Available as a High Temperature filter.
>
> "Designed to withstand hot light sources"
>
> Does NOT indicate whether it's 'mechanical' (melting) or
> perhaps more resistant to fading. The price differential
> is
> small enough that it's worth trying. ($8/sheet v
> $10/sheet from one dealer)
>
> 73, Garey - K4OAH
> Glen Allen, VA

It means both. While stage lights may not be very high power motion picture lights very often are, typically 2 kw to 10 kw incandescent and maybe 20+ KW high pressure xenon arc lamps. They get very hot so the gels must be resistant to melting and to fading.
Someone posted that he needed two layers of #172, its possible Lee makes a gel that is equivalent. They have spectral transmission charts for all the filters on their web site. Actually, in lighting practice its not at all unusual to use more than one filter on a lamp.
The other big supplier of lighting filters is Roscoe. I don't know the equivalent Roscoe filter but I think they have a filter chart on-line too. Some filters are common and have the same name among suppliers, for instance "no-color straw", this is used on "daylight" carbon arc lamps to approximate sunlight, there are others. The lighting plot for a stage show will usually detail the filters and diffusers to be used on the lights, usually be the manufacturer, name, and stock number.
My memory of Drake gear when new is that the dials

looked phosphorescent.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18848. RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 18:47:44 UTC
From: <kd2bly@...>
Topic: 18622 Message: 18848

I'm interested...please email me directly as I don't check this site often enough. Email to chevnut712@gmail.com and it will come right to my phone. Let me know either way please, even if you sold it already. Thanks, John/KD2BLY

18849. L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:07:33 UTC
From: Bill Gaines
Topic: 18849 Message: 18849

I am spending part of the day installing a couple of modifications to my L4B and have a legitimate question for those in the know. When my station is complete I will have a “modern” station set up complete with amplifier and a completely restored C-Line and L4B amplifier. I purchased the inrush modification for the amp as well as the soft key modification but before I go ahead and install the soft key mod I though I would find out the answer to this question.

I planned to install the soft key mod just in case my “modern” amp went out so I would still have an amp. However, if my modern amp never goes out and I want to always use the L4B with the T4XC will I be able to do so after installing the modification. Or should I just wait until such time I may need the amp to run with the modern rig then install it?

The short question here is can I still use the L4B with the T4XC after installing the SK401 soft key interface?

Thank you

Bill AD8P

18850. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:12:18 UTC
From: Don Cunningham
Topic: 18849 Message: 18850

Quick answer is yes, Bill. The T4XC gives a set of relay contacts, so could care less what it sees. Install it if you like, if it activates by a switch to ground.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7118 - Release Date: 02/23/14

18851. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:28:08 UTC
From: Evan Rolek
Topic: 18849 Message: 18851

Bill,

Typically a soft key interface will enable the linear to be used with any rig, solid state or tube. I using the UKA-2 interface on my L4B and L7. Installation per the presentations at the Drake Forum at Hamvention in past years, might even have slides at the WB4HFN website.

73,

Evan, K9SQG

-----Original Message-----
From: Bill Gaines <ad8p@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Feb 23, 2014 2:07 pm
Subject: [DrakeRadio] L4B Soft Key Interface

I am spending part of the day installing a couple of modifications to my L4B and have a legitimate question for those in the know. When my station is complete I will have a “modern” station set up complete with amplifier and a completely restored C-Line and L4B amplifier. I purchased the inrush modification for the amp as well as the soft key modification but before I go ahead and install the soft key mod I though I would find out the answer to this question.

I planned to install the soft key mod just in case my “modern” amp went out so I would still have an amp. However, if my modern amp never goes out and I want to always use the L4B with the T4XC will I be able to do so after installing the modification. Or should I just wait until such time I may need the amp to run with the modern rig then install it?

The short question here is can I still use the L4B with the T4XC after installing the SK401 soft key interface?

Thank you

Bill AD8P

18852. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:30:27 UTC
From: Evan Rolek
Topic: 18849 Message: 18852

To add to Don's comment, some of the newer rigs have a selectable interface, MOSFET or relay. However "those relays" have very low ratings in terms of how much voltage and current they can handle, typically not enough for the vintage linears.

-----Original Message-----
From: Don Cunningham <donc@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Feb 23, 2014 2:12 pm
Subject: Re: [DrakeRadio] L4B Soft Key Interface

☐
Quick answer is yes, Bill. The T4XC gives a set of relay contacts, so could care less what it sees. Install it if you like, if it activates by a switch to ground.
73,
Don, WB5HAK
No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7118 - Release Date: 02/23/14

18853. Re: [DrakeRadio] RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:37:04 UTC
From: Dan Galligan
Topic: 18622 Message: 18853

John, great to see you here in the group! You're going to find a bunch of terrific, helpful folks, here.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Feb 23, 2014, at 12:47, kd2bly@... wrote:
>
>
>
> I'm interested...please email me directly as I don't check this site often enough. Email to chevnut712@... and it will come right to my phone. Let me know either way please, even if you sold it already. Thanks, John/KD2BLY
>
>

18854. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 19:41:17 UTC
From: <radiomanl@...>
Topic: 18777 Message: 18854

I agree with the 4th dimension , I don't have any problem finding my cat until time comes to take her to the vet , then she is nowhere to be found .

I too have dropped small parts and never saw them again . even the 30 lb. magnet from a 15 " sub woofer would not find the little screw .

andrew
kd5pnt

18855. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 20:06:18 UTC
From: Jim Shorney
Topic: 18777 Message: 18855

On 23 Feb 2014 11:41:17 -0800, radiomanl@... wrote:

>
>I agree with the 4th dimension , I don't have any problem finding my cat until time comes to take her to the vet , then she is nowhere to be found .

You need to be clever with these advanced aliens. It is imperative that you catch them unawares, otherwise they will retire to their private club on the Planet of Lost Socks until the time has passed. The trick is to bring the kitty carrier out a few days ahead of time and leave it in a conspicuous spot. She will quickly get used to it as just another thing around the house. Then when the time comes you can just scoop her into it and go. Works every time.

73

-Jim (they use the socks as drink koozies)
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18856. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 20:26:51 UTC
From: Dino Papas
Topic: 18849 Message: 18856

Well, that’s the whole idea for using the MOSFET, higher switching capability. On my Icom IC-7600 in that configuration the rating is up to 250V at 200mA which I’m gonna guess should be sufficient to switch just about any amp old or new.

Dino KL0S

On Feb232014, at 1430 PM, Evan Rolek <k9sqg@...> wrote:

> To add to Don's comment, some of the newer rigs have a selectable interface, MOSFET or relay. However "those relays" have very low ratings in terms of how much voltage and current they can handle, typically not enough for the vintage linears.
>
>
>
> -----Original Message-----
> From: Don Cunningham <donc@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Sun, Feb 23, 2014 2:12 pm
> Subject: Re: [DrakeRadio] L4B Soft Key Interface
>
>
> □
> Quick answer is yes, Bill. The T4XC gives a set of relay contacts, so could care less what it sees. Install it if you like, if it activates by a switch to ground.
> 73,
> Don, WB5HAK
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7118 - Release Date: 02/23/14

18857. TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 20:39:54 UTC
From: Marco B.
Topic: 18857 Message: 18857

Hello folks,

the radio is fine except for 10 meters. No matter which of the 3 positions I set the band on, the RF Tune needs to be all the way clockwise (#10) in order to here white noise. It seems to drift a little too.. again only on 10 meters. Is there anything I can do/check to fix this?

Marco

18858. Re: L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 20:47:14 UTC
From: Mike Bryce
Topic: 18849 Message: 18858

bill and the group,

I have a small pcb that mounts inside the l4.

It's going to be cheap, i have a few prototypes left.

pop me an email and I'll send some photos of the installed pcb inside the L4

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

18859. L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:09:49 UTC
From: Bill Gaines
Topic: 18859 Message: 18859

I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.

I am anxiously looking forward to getting this stuff on the air.

Bill AD8P

18860. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:19:27 UTC
From: vacuuminded2@...
Topic: 18859 Message: 18860

If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been able to nail down anything to secure NOS stock or have them custom made.

Chris

Sent from my outdated iPhone wireless thingy

On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...m> wrote:

> I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.
>
> I am anxiously looking forward to getting this stuff on the air.
>
> Bill AD8P
>

18861. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:21:11 UTC
From: Bill Gaines
Topic: 18859 Message: 18861

If that is the case, what are most doing to cope with the problem?

Thanks
Bill AD8P

From: vacuuminded2@...
Sent: Sunday, February 23, 2014 4:19 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B Relay Connector

If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been able to nail down anything to secure NOS stock or have them custom made.

Chris

Sent from my outdated iPhone wireless thingy

On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...> wrote:

I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.

I am anxiously looking forward to getting this stuff on the air.

Bill AD8P

18862. TR-4C meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:25:08 UTC
From: k7mks@...
Topic: 18862 Message: 18862

With no incoming signals, including crystal calibrator, and with C-130 adjusted for equal sounding "white noise" when switching between
Lower" and "Upper" I am unable to zero the S-meter in both sidebands. It will zero with one or the other and then the other is off by 1 to 1 1/2 S units or so. I can adjust C-130 so the S- meter zeros in both sidebands but then the "white noise" has a different sound in each sideband.

My other TR-4CW/RIT works as it should in all respects to S-meter zero, C-130, and "white noise": sound.

I'm convinced I'm overlooking something.

73 joe k7mks

18863. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:25:58 UTC
From: vacuuminded2@...
Topic: 18859 Message: 18863

Either building connectors with pins on a piece of phenolic or plastic, or replacing them with something else- commonly a RCA connector.

Chris

Sent from my outdated iPhone wireless thingy

On Feb 23, 2014, at 3:21 PM, "Bill Gaines" <ad8p@...> wrote:

> If that is the case, what are most doing to cope with the problem?
>
> Thanks
> Bill AD8P
>
> From: vacuuminded2@...
> Sent: Sunday, February 23, 2014 4:19 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] L4B Relay Connector
>
>
> If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been able to nail down anything to secure NOS stock or have them custom made.
>
> Chris
>
> Sent from my outdated iPhone wireless thingy
>
> On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...> wrote:
>
>>
>> I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.
>>
>> I am anxiously looking forward to getting this stuff on the air.
>>
>> Bill AD8P
>
>

18864. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:37:02 UTC
From: Steve Wedge
Topic: 18777 Message: 18864

I have never been able to get any of my cats to voluntarily get into a kitty carrier.

Mind you, they'll scrunch into Coca-Cola can 12-packs, Drake boxes, briefcases and overnight bags. They are way too smart to get into the carrier.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Jim Shorney
Sent: Sunday, February 23, 2014 3:06 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

On 23 Feb 2014 11:41:17 -0800, radiomanl@... wrote:

>
>I agree with the 4th dimension , I don't have any problem finding my cat until time comes to take her to the vet , then she is nowhere to be found .

You need to be clever with these advanced aliens. It is imperative that you catch them unawares, otherwise they will retire to their private club on the Planet of Lost Socks until the time has passed. The trick is to bring the kitty carrier out a few days ahead of time and leave it in a conspicuous spot. She will quickly get used to it as just another thing around the house. Then when the time comes you can just scoop her into it and go. Works every time.

73

-Jim (they use the socks as drink koozies)
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

18865. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:42:06 UTC
From: Steve Wedge
Topic: 18857 Message: 18865

The tuning for the 10m band is done with one set of coil adjustments, for all three segments. In the manual, they have you peak the coil at 29.7 MHz or thereabouts, with the RF TUNE on "9 3/4" - I.e., almost to 10. Presumably, this allows the single adjustment to work over the entire band. It may also have something to do with spectral purity, so I'll wait for Garey to chime in on this. I have had better results tuning it a couple hundred kHz lower.

If you're peaking on "10" on all segments, there's something wrong with the 10m tuning. Someone before you may have been in there with a "golden screwdriver" or they were running it on 11m. Try doing the adjustments for 10m per the manual first.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Marco B.
Sent: Sunday, February 23, 2014 3:39 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4 and 10 meter trouble

Hello folks,

the radio is fine except for 10 meters. No matter which of the 3 positions I set the band on, the RF Tune needs to be all the way clockwise (#10) in order to here white noise. It seems to drift a little too.. again only on 10 meters. Is there anything I can do/check to fix this?

Marco

18866. TR4cw audio output transformer open -- need recommendation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:44:49 UTC
From: Leon Zebrick
Topic: 18866 Message: 18866

No plate voltage on V17 pin 5. T15 primary winding is open. Drake part number for the transformer is (was) 369-0120. Can anyone specify a suitable replacement? Somewhat familiar with the Hammond line of transformers, but I do not know which one to buy.
 Thanks! N5LAZ

18867. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:50:25 UTC
From: Mark Pilant
Topic: 18859 Message: 18867

Hi Bill.

> If that is the case, what are most doing to cope with the problem?

Here is what I did for my AC-4:

http://www.n1vqw.net/ac4voxjack/

100% reversible if a source for the two prong plugs becomes available.

73

- Mark N1VQW

18868. Re: [DrakeRadio] TR-7 poor Receive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:52:46 UTC
From: Jim Shorney
Topic: 18835 Message: 18868

Depspite the conventional wisdom about problematic PIN diodes, I have not had any bad ones cross my bench yet. It is, however, more common than I would have thought to find a TR-7 that has been paired with an R-7 during it's life and has had that jumper between the RCA jacks cut. So that's always my first check now. My "spare" TR-7 actually came to me with an external jumper in place, which doesn't happen very often. Gary's problem was a little more unusual, but still points to those RCA jacks as the first check. Otherwise you might end up chasing ghosts for a while.... :)

73

-Jim
NU0C

On Sun, 23 Feb 2014 08:22:42 -0600, Leon Zebrick wrote:

>I would check the infamous PIN diodes as a start for any TR7 receive sensitivity problem.
>
>Sent from my iPhone
>
>On Feb 23, 2014, at 6:25 AM, <k4mt@...> wrote:
>
>> I had a squirrel chew my feedline. I keyed up the TR-7 to make a call and saw high SWR on first voice peak and shut it down.
>>
>>
>> Now TX is fine on all bands with normal power, squirrel has met his maker, and RX sense has dropped from less than .2 microvolt for 10 db to 10 microvolts. Where do you think damage might have been done. I do not have extenders so repair might be difficult. I
>>
>> Gary K4MT
>>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

18869. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:57:33 UTC
From: Jim Shorney
Topic: 18777 Message: 18869

I didn't say "voluntarily", did I? :D Of course it's not voluntary. But it's a lot easier to snag them in an unsuspecting moment if they are used to the carrier being around the main living area than it is if they flee at the first sight of the carrier.

73

-Jim
NU0C

On Sun, 23 Feb 2014 16:37:02 -0500, Steve Wedge wrote:

>I have never been able to get any of my cats to voluntarily get into a kitty carrier.
>
>Mind you, they'll scrunch into Coca-Cola can 12-packs, Drake boxes, briefcases and overnight bags. They are way too smart to get into the carrier.
>
>Steve Wedge, W1ES/4
>
>Time flies like an arrow; fruit flies like a banana.
>
>
>All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
>From: Jim Shorney
>Sent: Sunday, February 23, 2014 3:06 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into
>
>
>
>On 23 Feb 2014 11:41:17 -0800, radiomanl@... wrote:
>
>>
>>I agree with the 4th dimension , I don't have any problem finding my cat until time comes to take her to the vet , then she is nowhere to be found .
>
>You need to be clever with these advanced aliens. It is imperative that you
>catch them unawares, otherwise they will retire to their private club on the
>Planet of Lost Socks until the time has passed. The trick is to bring the kitty
>carrier out a few days ahead of time and leave it in a conspicuous spot. She
>will quickly get used to it as just another thing around the house. Then when
>the time comes you can just scoop her into it and go. Works every time.

>
>73
>
>-Jim (they use the socks as drink koozies)
>NU0C
>
>--
>The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18870. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:59:30 UTC
From: Garey Barrell
Topic: 18849 Message: 18870

I really don't understand the need for an 'external' relay with the L-4B. The relay in the amp operates at 30 VDC, and
about 60 mA, and is diode suppressed. Most any relay I've ever seen could handle that easily, and even a 2N3904
transistor would handle that as well.

It certainly won't hurt anything, BUT, is just one more thing to fail. Every radio I've seen specifies the capability
of their internal relay, and as long as it's above 30 VDC and 60 mA I wouldn't worry about it. I keyed my L-4B for
years with a TS-940 in PACTOR!!!

To answer your direct question, 'probably', the T-4XC relay has contacts rated at 2A, but MINIMUM recommended is 12 VDC
and 100 mA. I suppose this is related to corrosion of the 'fine silver' contacts. The 'relay savers' seem to pride
themselves on 5V, uA currents, which results in the 'not enough voltage and/or current' to break through even the
tiniest oxidation. (See TR-7!!)

For maximum reliability, especially if not in regular use, you'd do better with an R10-E1Z4-V185 (fine silver,
bifurcated, 1 mA minimum), or even R10-E1P4-V185 (gold plated silver, bifurcated, (dry circuit [~0 mA] - 1 mA minimum)!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bill Gaines wrote:
>
>
> I am spending part of the day installing a couple of modifications to my L4B and have a legitimate question for those
> in the know. When my station is complete I will have a “modern” station set up complete with amplifier and a
> completely restored C-Line and L4B amplifier. I purchased the inrush modification for the amp as well as the soft key
> modification but before I go ahead and install the soft key mod I though I would find out the answer to this question.
> I planned to install the soft key mod just in case my “modern” amp went out so I would still have an amp. However, if
> my modern amp never goes out and I want to always use the L4B with the T4XC will I be

able to do so after installing
> the modification. Or should I just wait until such time I may need the amp to run with the modern rig then install it?
> The short question here is can I still use the L4B with the T4XC after installing the SK401 soft key interface?
> Thank you
> Bill AD8P
>

18871. R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 21:31:16 UTC
From: <tharlam@...>
Topic: 18871 Message: 18871

Hello All,

I have an R4B that was given to me. It seems to be working OK except that the PTO frequency is way off.

With the aluminum cover in place, the PTO freq. is about 190 kHz too high (its minimum freq is 5145 kHz, not the 4955 which it should be according to the manual).
The mechanical stop for the slug seems to be OK as the slug slider gets to about 1mm from the front panel stop when the dial gets to its max rotation.
I cleaned the slider and spring contact surfaces, which did not change the frequency.

I removed the aluminum PTO cover and found that the min. PTO freq. then dropped to 5004.
(I would have thought that having the alum. cover around the coil would lower the freq, not raise it, but I guess that shows how little I know.)
I poked on all the components on the PTO board that I could reach, which only caused the freq. to wiggle 100 Hz or so, no big change.

Would any one have an idea on what might be wrong with the PTO?

The freq. with the cover off, while still too high for proper dial calibration, would allow operation over most of the ham band. Is there any reason not to leave it that way until I can find a proper fix?

Thanks and 73,
Rod, VE7VV

18872. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:02:10 UTC
From: Jim Shorney
Topic: 18859 Message: 18872

Quite by accident I found out that the four-pin inline flyback connector on many older CRT monitor boards has two pins that are almost exactly the correct spacing. Of course, you need to have easy access to scrap monitor boards to find one. I got lucky, as they aren't as easy to find these days as they used to be.

73

-Jim
NU0C

On Sun, 23 Feb 2014 16:21:11 -0500, Bill Gaines wrote:

>If that is the case, what are most doing to cope with the problem?
>
>Thanks
>Bill AD8P
>
>From: vacuuminded2@...
>Sent: Sunday, February 23, 2014 4:19 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] L4B Relay Connector
>
>
>
>If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been able to nail down anything to secure NOS stock or have them custom made.
>
>Chris
>
>Sent from my outdated iPhone wireless thingy
>
>On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...> wrote:
>
>
>
> I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.
>
> I am anxiously looking forward to getting this stuff on the air.

>
> Bill AD8P
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18873. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:19:09 UTC
From: Bill Gaines
Topic: 18859 Message: 18873

It just so happens I have a CRT monitor in the garage. Before I tear it apart, will It be possible to get two of these item from one monitor or will I need to salvage another monitor somewhere?

Bill

Thank you by the way.

From: Jim Shorney
Sent: Sunday, February 23, 2014 5:02 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B Relay Connector

Quite by accident I found out that the four-pin inline flyback connector on
many older CRT monitor boards has two pins that are almost exactly the correct
spacing. Of course, you need to have easy access to scrap monitor boards to
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"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

18874. Re: [DrakeRadio] TR4cw audio output transformer open -- need recommendation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:29:41 UTC
From: Garey Barrell
Topic: 18866 Message: 18874

Leon -

Must have missed your post... Yep, there seems to be a rash of those lately. Hope it's not an 'end of life'
situation!! :-)

Best chance aside from a donor unit is the Bogen T725. You need to select the right lead, I'm going from memory here,
but I 'think' it's the Green lead to the Plate of V17, and the _BLACK_ lead to the Plate supply. The Pink leads are the
speaker leads. Just remember you're interested in 'impedance', not turns ratio. The Plate load is 2500 to 4 ohms to
match the Drake speakers.

Available from just about any supplier, including Amazon!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
>
>
> No plate voltage on V17 pin 5. T15 primary winding is open. Drake part number for the transformer is (was) 369-0120.
> Can anyone specify a suitable replacement? Somewhat familiar with the Hammond line of transformers, but I do not
> know which one to buy. Thanks! N5LAZ
>
>
>

18875. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:35:19 UTC
From: Garey Barrell
Topic: 18859 Message: 18875

Or you can just purchase a length of 3/32 brass thin wall tubing from your local hobby shop. Hobby Lobby and most of
the 'craft' stores have about 18" lengths for a buck or two...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Bill Gaines wrote:
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> It just so happens I have a CRT monitor in the garage. Before I tear it apart, will It be possible to get two of these
> item from one monitor or will I need to salvage another monitor somewhere?
> Bill
> Thank you by the way.
> *From:* Jim Shorney <mailto:jshorney@...>
> *Sent:* Sunday, February 23, 2014 5:02 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] L4B Relay Connector
>
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> Quite by accident I found out that the four-pin inline flyback connector on
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> >If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been
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> everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one
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> > Bill AD8P
> >
>

18876. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:39:34 UTC
From: Steve Wedge
Topic: 18871 Message: 18876

Rod, it sounds as if either a capacitor is open, or there's a cold solder joint to one of the caps. There are one or two very small value caps that are mounted off the board (flying leads). Check that these are soldered on each end.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: tharlam@...
Sent: Sunday, February 23, 2014 4:31 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] R4B PTO freq way off

Hello All,

I have an R4B that was given to me. It seems to be working OK except that the PTO frequency is way off.

With the aluminum cover in place, the PTO freq. is about 190 kHz too high (its minimum freq is 5145 kHz, not the 4955 which it should be according to the manual).
The mechanical stop for the slug seems to be OK as the slug slider gets to about 1mm from the front panel stop when the dial gets to its max rotation.
I cleaned the slider and spring contact surfaces, which did not change the frequency.

I removed the aluminum PTO cover and found that the min. PTO freq. then dropped to 5004.
(I would have thought that having the alum. cover around the coil would lower the freq, not raise it, but I guess that shows how little I know.)
I poked on all the components on the PTO board that I could reach, which only caused the freq. to wiggle 100 Hz or so, no big change.

Would any one have an idea on what might be wrong with the PTO?

The freq. with the cover off, while still too high for proper dial calibration, would allow operation over most of the ham band. Is there any reason not to leave it that way until I can find a proper fix?

Thanks and 73,
Rod, VE7VV

18877. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:42:50 UTC
From: Garey Barrell
Topic: 18871 Message: 18877

The drive screw follower shouldn't be that close to the front.

What is the frequency at the other end?? Should cover 5.455 to 4.955 MHz with room left on the drive screw. If it's
shifted, (well away from the rear end of the drive screw at 5.455 MHz, you may have a bad cap. Very unusual though, so
be sure and eliminate everything else before subbing caps, as that would surely affect the tempco and/or tracking.
Proceed cautiously!!

There isn't any problem running it without the cover, aside from sensitivity to external coupling.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

tharlam@... wrote:
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> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7117 - Release Date: 02/22/14
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18878. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:50:27 UTC
From: Marco B.
Topic: 18857 Message: 18878

Steve, I've gone through the manual a few times just now and for the life of me, I can't find a section where it mentions the "9 3/4" anywhere. It is comforting that you say the RF Tune should be near 10 but not 10. I've never been much of a 10 meter guy but today my 20 and 15 meter band were just pitiful!

Marco VE2MRN

On Sunday, February 23, 2014 4:42:12 PM, Steve Wedge <w1es1982@...> wrote:

The tuning for the 10m band is done with one set of coil
adjustments, for all three segments. In the manual, they have you peak the
coil at 29.7 MHz or thereabouts, with the RF TUNE on "9 3/4" - I.e., almost to
10. Presumably, this allows the single adjustment to work over the entire
band. It may also have something to do with spectral purity, so
I'll wait for Garey to chime in on this. I have had better results
tuning it a couple hundred kHz lower.

If you're peaking on "10" on all segments, there's
something wrong with the 10m tuning. Someone before you may have been in
there with a "golden screwdriver" or they were running it on 11m. Try
doing the adjustments for 10m per the manual first.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a
banana.

All my computers have my signature with various
pearls of wisdom appended thereto.

From: Marco B.
Sent: Sunday, February 23, 2014 3:39 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4 and 10 meter trouble

Hello
folks,

the radio is fine except for 10 meters. No matter which of the 3
positions I set the band on, the RF Tune needs to be all the way clockwise (#10)
in order to here white noise. It seems to drift a little too.. again only on 10
meters. Is there anything I can do/check to fix this?

Marco

18879. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 22:50:55 UTC
From: Garey Barrell
Topic: 18857 Message: 18879

Marco -

I'd guess the BAND oscillator is not running on the 10M crystals. Could be an open L2, 3, or 4. Check the oscillator
with a High Impedance Meter on 'TP' on top of the chassis just under the S-Meter. Should read several negative volts on
all three 10M BAND switch positions and on 40M.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Marco B. wrote:
>
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> there anything I can do/check to fix this?
>
> Marco
>

18880. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 23:12:38 UTC
From: Roger Graves
Topic: 18871 Message: 18880

Thanks Steve and Gary.

I just checked the PTO situation.

Full CCW rotation of dial
Dial goes beyond .500 (top)/1.00 (bot) to <>
Slug extends about 5/8 inch out of back of coil
Freq is 5004 Hz

Full CW rotation of dial
Dial stops at 0 (top)/.500 (bot)
Slug extends about 1/16 inch out of back of coil, front slug carrier about 1/16 inch from front panel
Freq is 5542 Hz

What does that suggest?

Rod

On Feb 23, 2014, at 2:42 PM, Garey Barrell <k4oah@...> wrote:

> The drive screw follower shouldn't be that close to the front.
>
> What is the frequency at the other end?? Should cover 5.455 to 4.955 MHz with room left on the drive screw. If it's
> shifted, (well away from the rear end of the drive screw at 5.455 MHz, you may have a bad cap. Very unusual though, so
> be sure and eliminate everything else before subbing caps, as that would surely affect the tempco and/or tracking.
> Proceed cautiously!!
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> There isn't any problem running it without the cover, aside from sensitivity to external coupling.
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> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> tharlam@... wrote:
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18881. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 23:16:19 UTC
From: Roger Graves
Topic: 18871 Message: 18881

Garey,
Sorry, I should have added that those freq measurements are with the aluminum cover off.
Rod

On Feb 23, 2014, at 2:42 PM, Garey Barrell <k4oah@...> wrote:

> The drive screw follower shouldn't be that close to the front.
>
> What is the frequency at the other end?? Should cover 5.455 to 4.955 MHz with room left on the drive screw. If it's
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18882. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-23 23:25:08 UTC
From: Steve Wedge
Topic: 18857 Message: 18882

That should only tune at "9 3/4" at the top end of the 29.1 scale. The other segments should tune somewhere nearer the middle.

As Garey mentioned, there may be a bad inductor. If you don't know the person you got it from, don't discount that it's possible that it was tuned for 11m...

Steve Wedge, W1ES/4

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All my computers have my signature with various pearls of wisdom appended thereto.

From: Marco B.
Sent: Sunday, February 23, 2014 5:50 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4 and 10 meter trouble

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Marco

18883. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 00:08:32 UTC
From: Marco B.
Topic: 18857 Message: 18883

I bought the Drake 11 years ago from a ham in Ontario. Like I said, 10 meter hasn't been my band so I never really pushed the issue.
When I do the alignment and get to step "C" Crystal Oscillator Alignment, I am getting -0.27 to -0.31V on the three 10 meter positions and about -0.34V on 40 meters. Signals are coming in strong but not having the play on the RF Tune is worrisome. Garey, I don't see L3 nor L4 in the manual diagrams. I really should get someone who knows what he's doing to look at this issue. Thanks for your time. I appreciate it.

Marco VE2MRN

On Sunday, February 23, 2014 6:25:12 PM, Steve Wedge <w1es1982@...> wrote:

That should only tune at "9 3/4" at the top end of the
29.1 scale. The other segments should tune somewhere nearer the
middle.

As Garey mentioned, there may be a bad inductor.
If you don't know the person you got it from, don't discount that it's possible
that it was tuned for 11m...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a
banana.

All my computers have my signature with various
pearls of wisdom appended thereto.

From: Marco B.
Sent: Sunday, February 23, 2014 5:50 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4 and 10 meter
trouble

Steve,
I've gone through the manual a few times just now and for the life of me, I can't find a section where it mentions the "9 3/4" anywhere. It is comforting that you say the RF Tune should be near 10 but not 10. I've never been much of a 10 meter guy but today my 20 and 15 meter band were just pitiful!

Marco VE2MRN

On Sunday, February 23, 2014 4:42:12 PM,
Steve Wedge <w1es1982@...> wrote:

The tuning for the 10m band is done with one set of coil
adjustments, for all three segments. In the manual, they have you peak the
coil at 29.7 MHz or thereabouts, with the RF TUNE on "9 3/4" - I.e., almost to

10. Presumably, this allows the single adjustment to work over the entire band. It may also have something to do with spectral purity, so I'll wait for Garey to chime in on this. I have had better results tuning it a couple hundred kHz lower.

If you're peaking on "10" on all segments, there's something wrong with the 10m tuning. Someone before you may have been in there with a "golden screwdriver" or they were running it on 11m. Try doing the adjustments for 10m per the manual first.

73,

Steve Wedge, W1ES/4

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From: Marco B.
Sent: Sunday, February 23, 2014 3:39 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4 and 10 meter trouble

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Marco

18884. Re: [DrakeRadio] L4B Soft Key Interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 00:19:44 UTC
From: Mike Bryce
Topic: 18849 Message: 18884

Garey, and the group,

My L4 key line sits at 39 volts. And measured key current is almost 100 ma.
Not a deal breaker and your mileage may vary.

I guess the big problem is using an amp like this without an interface with
the newer radios. A SMT transistor will lose that battle.

I've would never use a interface between a old Drake, or heathkit rig,
those guys use a multi-contact relay that would more than handle the
current and voltage.

and a FYI,

I found that a MOLEX .062 PIN fits the relay socket on the L4 perfectly.
So, a hunk of wire, some heat shrink tubing and you've got a cable. Not
pretty, but certainly workable.

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

18885. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 00:19:45 UTC
From: L L bahr
Topic: 18857 Message: 18885

There is one adjustable coil and it is connected to the upper 10 meter switch position. Then there is a small semi loop wire going from this switch position to the middle 10 meter switch position. Then there is a small semi looped wire going from the middle 10 meter switch position to the lower 10 meter switch position. So you are adjusting the coil to the top of the 10 meter band with the adjustable coil and then as you go lower in the band by switching the band position switch you are adding a little bit of inductance by adding a little wire each time you lower the band switch on the 10 meter band.
Lee, w0vt

I bought the Drake 11 years ago from a ham in Ontario. Like I said, 10 meter hasn't been my band so I never really pushed the issue.
When I do the alignment and get to step "C" Crystal Oscillator Alignment, I am getting -0.27 to -0.31V on the three 10 meter positions and about -0.34V on 40 meters. Signals are coming in strong but not having the play on the RF Tune is worrisome. Garey, I don't see L3 nor L4 in the manual diagrams. I really should get someone who knows what he's doing to look at this issue. Thanks for your time. I appreciate it.

Marco VE2MRN

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As Garey mentioned, there may be a bad inductor. If you don't know the person you got it from, don't discount that it's possible that it was tuned for 11m...

Steve Wedge, W1ES/4

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From: Marco B.
Sent: Sunday, February 23, 2014 5:50 PM
To: DrakeRadio@...m
Subject: Re: [DrakeRadio] TR-4 and 10 meter trouble

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Marco

18886. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 00:30:26 UTC
From: Steve Wedge
Topic: 18857 Message: 18886

That pretty much rules out 11m hanky-panky. Check for cold solder joints before taking parts out.

Steve Wedge, W1ES/4

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From: L L bahr
Sent: Sunday, February 23, 2014 7:19 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4 and 10 meter trouble

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Marco

18887. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 01:32:09 UTC
From: Marco B.
Topic: 18857 Message: 18887

Can I post a picture on this list?

Marco VE2MRN

On Sunday, February 23, 2014 7:19:56 PM, L L bahr <pulsarxp@...> wrote:

There is one adjustable coil and it is connected to the upper 10 meter switch position. Then there is a small semi loop wire going from this switch position to the middle 10 meter switch position. Then there is a small semi looped wire going from the middle 10 meter switch position to the lower 10 meter switch position. So you are adjusting the coil to the top of the 10 meter band with the adjustable coil and then as you go lower in the band by switching the band position switch you are adding a little bit of inductance by adding a little wire each time you lower the band switch on the 10 meter band.
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Marco

18888. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 01:45:42 UTC
From: Robert Logan
Topic: 1054 Message: 18888

I agree. I'm either a terrible procrastinator or a total skinflint to wait so long. Probably both. Bob

Sent from my iPhone

On Feb 22, 2014, at 6:24 PM, James Scribner <swpthg@...> wrote:

Bob, NZ5A
Bob, the CD for your Drake will be the second best investment you can make, following the Drake of course! I resent purchased one from Gary and it it just packed with valuable info and color pictures. This is an unsolicited comment, just has helped me on my TR-4 immensely an thought the "Thank you Gary" was over due!

Jim, W5SWM

18889. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 01:50:33 UTC
From: Robert Logan
Topic: 1054 Message: 18889

Totally. I'm not interested in SPR-4s or L4Bs, for example, but I read every post no matter what it's about just to learn more about radios and such. Great info all the time here. Bob

Sent from my iPhone

On Feb 22, 2014, at 5:35 PM, "Bernie" <barcand@...> wrote:

☐

Robert,
Several times I've accused Garey of being a retired professor from an engineering department of some college (MIT comes to mind). I have learned more about how receivers work, even if they're not Drakes, just from his explanations....something I could stare at a schematic all day long and not come to the same thoughtful conclusions!!
A real GEM on this list!!

Bernie in ND
WDØGMD

----- Original Message -----
From: Robert Logan
To: DrakeRadio@yahoogroups.com
Cc: DrakeRadio@yahoogroups.com
Sent: Friday, February 21, 2014 3:38 PM
Subject: Re: [DrakeRadio] T-4XC problem

Dang, you're clear! You must have been a professional technical writer at one time.

Thank you very much, Gary. Lots to check on but clear as a bell. Now if I could only find CR15....

I need your CD. Skinflint that I am, I gotta go ahead, unglue my wallet, and order it. Bob, NZ5A

Sent from my iPhone

On Feb 21, 2014, at 9:22 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK. It's NOT V10. Sounds like the V9a audio oscillator ain't!!

The ~ 1kHz audio note generated here is 'keyed' by CR15, and amplified by V9b. Output to the BAL MOD for TUNE operation
is from the Cathode of V9b, and the SIDETONE comes from the Plate of V9b.

A shorted CR15 would give the symptoms you describe, as it would prevent the audio signal, IF it's there, from reaching
V9b. The V9a oscillation is controlled by switching in a phase shift network, R97, 98 and

99 along with associated
capacitors. Here the most likely problem is dirty switch contacts on the FUNCTION switch, on the front side of the
fourth wafer from the panel.

The signals out of V9b are MISSING, either because V9a is not generating them, or they're being prevented from reaching
V9b, most likely by a shorted CR15.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Gary, thanks for the guidance.
>
> TUNE works in the sense that I can peak the output with the RF TUNE and PLATE controls as indicated in an S meter on
> the R4B but there is no output showing even in a QRP wattmeter (which is known good). When I switch to CW and send,
> there is full normal output on the wattmeter (this time using the W4 wattmeter (also known good). If I try to hold a
> long dash, it still drops out quickly but sending a string of characters like my call or RST shows full output.
>
> Being able to get full output when sending CW but no watts out in TUNE tells me something but I don't know what
> exactly. Adjusting GAIN does vary the output in both transmit and TUNE (on the S meter).
>
> Another in this fine group suggested it might be a bad 6EV7.
> Sent from my iPhone
>
> On Feb 20, 2014, at 9:36 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Bob -
>
> V9 is converted to a phase shift audio oscillator in CW. This is the SIDETONE, and the tone used in TUNE mode. IF TUNE
> works ok, the the problem is most likely a shorted CR15. Less likely is R84/85. The reason it pulls in briefly is the
> C115/CR17 network which 'yanks' the VOX on quickly to preserve the first 'dit' or the first syllable on SSB by sending a
> pulse of current directly to the Grid of V10B.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> > My T-4XC recently developed a problem of unkeying quickly on SPOT and when sending a long dash on CW transmit. It
> only occurs on CW. SSB and AM spot and transmit are as per usual. The CW DELAY pot has little effect on how quickly it
> unkeys on SPOT or the long dash. In addition, there is no sidetone at any settings of the antivox, VOX gain, or CW
> delay controls. The lack of sidetone occurred at the same time as its unkeying quickly in CW SPOT or CW transmit. When
> sending faster CW, the rig keys, stays on, and drops out as it should.
> >
> > I've substituted 12AX7s (V9) and antivox cables but the problem persists. I'm thinking maybe C107 or CR15 might be
> the culprits but I don't why it would be fine in faster transmissions if they were bad. Maybe it's even a dirty relay?
> >
> > Any advice would be greatly appreciated. Bob, NZ5A
> >
> >
>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7111 - Release Date: 02/20/14
>

18890. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 01:56:27 UTC
From: Robert Logan
Topic: 18777 Message: 18890

Frontier travelers in Texas used to ring themselves at night with horsehair ropes to keep snakes away.

I thought it might prevent cats from jumping out of an encirclement zone leading to a camouflaged cat carrier.

Didn't work either. They just started playing with it. Bob

Sent from my iPhone

On Feb 22, 2014, at 4:02 PM, "Jim Shorney" <jshorney@...> wrote:

I've tried offering them cookies, that's been rumored to work. I have also tried politely asking. Oh well.

Cat books.... An amusing quick read is "Cat-A-Lyst" by Alan Dean Foster. If you are into epics, à la "Watership Down", look for "Tailchaser's Song" by Tad Williams. Highly recommended.

73

-Jim
NU0C

On Sat, 22 Feb 2014 13:21:27 -0800, Richard Knoppow wrote:

>
>----- Original Message -----
>From: "Jim Shorney" <jshorney@inebraska.com>
>To: <DrakeRadio@yahoogroups.com>
>Sent: Saturday, February 22, 2014 1:04 PM
>Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
>troubles I get myself into
>
>
>>
>> Of course the cats can see it. That's a given. Do you
>> really think that they
>> are FROM this planet?
>>
>> The fairies have that Swan (Siltronix) VFO dial that went
>> missing here several
>> years ago. I have not been able to convince them to return
>> it yet. I think they
>> have that fiberglass rod that I was looking for yesterday
>> too. I suppose maybe

>> they needed it to pitch a tent.
>>
>> 73
>>
>> -Jim
>> NU0C
>
> Leave something else interesting around, they may
>trade. Sometimes, if you ask nicely and explain the thing
>is vital they will return it. I sound like I really believe
>this stuff. Maybe I do.
> For cat people try the detective series "The Cat
>Who..." Especially if you like Siamese.
>
>
>--
>Richard Knoppow
>Los Angeles
>WB6KBL

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

18891. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:09:02 UTC
From: Joe W2KJ
Topic: 1054 Message: 18891

I certainly agree on the value of Gareys CD's.

I have both the C-line and TR4 series and they have saved me several times over the years from having to send my gear out for repair.

Plus Garey is just a treasure when it comes to Drake equipment.

I've had 4 C-lines of the past 40 years....never could understand why I sold the first three sets....but I'm keeping the fourth (grin).

Recently picked up a very nice TR4CW/RIT that is also a keeper.

I don't know why I keep all of this tube stuff...I have Elecraft K3 and KX3 rigs...solid state and simply outstanding equipment...but I cut my teeth on tube stuff 57 years ago or so and just can't shake them (grin).

I sent a note to Garey earlier about replacing 6JB6's with 6GJ5's....the 6GJ5's work FB and neutralize easily...just make sure to get the "short" version of the 6GJ5...evidently they also make a "tall" version that won't fit properly in the T4XC final cage.....don't ask me how I know!!

73, Joe W2KJ

On Feb 23, 2014, at 8:45 PM, Robert Logan wrote:

>
> I agree. I'm either a terrible procrastinator or a total skinflint to wait so long. Probably both. Bob
>
> Sent from my iPhone
>
> On Feb 22, 2014, at 6:24 PM, James Scribner <swpthg@...> wrote:
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>
> Bob, NZ5A
> Bob, the CD for your Drake will be the second best investment you can make, following the Drake of course! I resent purchased one from Gary and it it just packed with valuable info and color pictures. This is an unsolicited comment, just has helped me on my TR-4 immensely an thought the "Thank you Gary" was over due!
>
> Jim, W5SWM
>
>

18892. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:20:15 UTC
From: Evan Rolek
Topic: 18859 Message: 18892

Bill,

That 2 pin connector can be obtained used, occasionally, on Upay (Ebay). They run in the $19-40 range for one. It is more cost effective to do the conversion to the RCA phono jack to ensure shielding as well as avoiding polarity problems.

73,

Evan

-----Original Message-----
From: Bill Gaines <ad8p@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Feb 23, 2014 4:09 pm
Subject: [DrakeRadio] L4B Relay Connector

I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.

I am anxiously looking forward to getting this stuff on the air.

Bill AD8P

18893. Re: [DrakeRadio] TR-4 and 10 meter trouble

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:20:38 UTC
From: barcand@...
Topic: 18857 Message: 18893

Yahoo Groups strips off all attachments including pictures. The only way
to get a picture into this list is to send it to the e-mail of one of the
list moderators and he can post it into the photos or files.

Bernie in ND
WD0GMD

On Sun, February 23, 2014 7:32 pm, Marco B. wrote:
> Can I post a picture on this list?
>
>
>
> Marco VE2MRN
>
>
>
>
> On Sunday, February 23, 2014 7:19:56 PM, L L bahr
> <pulsarxp@...> wrote:
>
>
> There is one adjustable coil and it is connected to the upper 10 meter
> switch position. Then there is a small semi loop wire going from this
> switch position to the middle 10 meter switch position. Then there is a
> small semi looped wire going from the middle 10 meter switch position to
> the lower 10 meter switch position. So you are adjusting the coil to the
> top of the 10 meter band with the adjustable coil and then as you go lower
> in the band by switching the band position switch you are adding a little
> bit of inductance by adding a little wire each time you lower the band
> switch on the 10 meter band.
> Lee, w0vt
>
>
>
>
> I bought the Drake 11 years ago from a ham in Ontario. Like I said, 10
> meter hasn't been my band so I never really pushed the issue.
> When I do the alignment and get to step "C" Crystal Oscillator Alignment,
> I am getting -0.27 to -0.31V on the three 10 meter positions and about
> -0.34V on 40 meters. Signals are coming in strong but not having the play
> on the RF Tune is worrisome. Garey, I don't see L3 nor L4 in the manual
> diagrams. I really should get someone who knows what he's doing to look at
> this issue. Thanks for your time. I appreciate it.
>
>

>
> Marco VE2MRN
>
>
>
>
> On Sunday, February 23, 2014 6:25:12 PM, Steve Wedge
> <w1es1982@...> wrote:
>
>
> That should only tune at "9 3/4" at the top end of the 29.1 scale. The
> other segments should tune somewhere nearer the middle.
>
> As Garey mentioned, there may be a bad inductor. If you don't know the
> person you got it from, don't discount that it's possible that it was
> tuned for 11m...
>
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>
> From: Marco B.
> Sent: Sunday, February 23, 2014 5:50 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] TR-4 and 10 meter trouble
>
>
> Steve, I've gone through the manual a few times just now and for the life
> of me, I can't find a section where it mentions the "9 3/4" anywhere. It
> is comforting that you say the RF Tune should be near 10 but not 10. I've
> never been much of a 10 meter guy but today my 20 and 15 meter band were
> just pitiful!
>
>
>
> Marco VE2MRN
>
>
>
>
> On Sunday, February 23, 2014 4:42:12 PM, Steve Wedge
> <w1es1982@...> wrote:
>

>
> The tuning for the 10m band is done with one set of coil adjustments, for
> all three segments. In the manual, they have you peak the coil at 29.7
> MHz or thereabouts, with the RF TUNE on "9 3/4" - I.e., almost to 10.
> Presumably, this allows the single adjustment to work over the entire
> band. It may also have something to do with spectral purity, so
> I'll wait for Garey to chime in on this. I have had better results
> tuning it a couple hundred kHz lower.
>
> If you're peaking on "10" on all segments, there's something wrong with
> the 10m tuning. Someone before you may have been in there with a "golden
> screwdriver" or they were running it on 11m. Try doing the adjustments
> for 10m per the manual first.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>
> From: Marco B.
> Sent: Sunday, February 23, 2014 3:39 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] TR-4 and 10 meter trouble
>
>
> Hello folks,
>
> the radio is fine except for 10 meters. No matter which of the 3 positions
> I set the band on, the RF Tune needs to be all the way clockwise (#10) in
> order to here white noise. It seems to drift a little too.. again only on
> 10 meters. Is there anything I can do/check to fix this?
>
>
>
> Marco
>
>
>
>
>
>

18894. 7-Line paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:36:10 UTC
From: L L bahr
Topic: 18857 Message: 18894

I went to a swap meet yesterday and picked up a Drake WH7 wattmeter. Everything about the meter is great, except someone painted the cabinet with High Gloss Black paint. I'd like to repaint it close to it's original color. Does anyone on here have the color specs for the 7-Line paint color? I guess if all else fails I can try and color match the paint at Sherwin-Williams by taking a piece of 7 line equipment down to them to try and match. If my eyes serve me correctly , the paint is a very dark gray getting close to black.

Anyone have any ideas on this? I've done plenty of 4-line painting but never on a 7-line piece of equipment.
Lee, w0vt

18895. Re: [DrakeRadio] 7-Line paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:40:38 UTC
From: Don Cunningham
Topic: 18857 Message: 18895

Lee,
You almost have to just "match what you have" that you like the best. I have seen the old original black sticky paint turn to all sorts of shades of gray and almost to a white before repainted. Then Drake went to what I call a nice charcoal gray color, then the last new cabinets were actually Black, like the R8 series stuff (likely because the new vendors were making black). I think I'll have the local auto paint guy match the best looking one I have and paint all mine just to match and let it go at that!!!!!! Just an idea.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7119 - Release Date: 02/23/14

18896. Re: [DrakeRadio] 7-Line paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 02:56:43 UTC
From: L L bahr
Topic: 18857 Message: 18896

Hi Don,
Thanks for the ideas. I bought a TR-7 station new when they first came out, and all my cabinets in that line got "sticky " over time. (The paint had a flock type soft feel to it when it was new.) Sometime latter, Drake sold me all new cabinets with that dark Smokey gray paint on them to fix the problem. That's the way they are today.

This newly acquired WH7 has a terrible gloss black paint job on it and it will look much better with a Satin paint finish. Except for the paint job, the meter looks and works like it was new. I could not pass it up for $25.00. Most likely I'll take my other nice WH7 down to Sherwin- Williams to match the paint for me.
Lee, w0vt

☐
Lee,
You almost have to just "match what you have" that you like the best. I have seen the old original black sticky paint turn to all sorts of shades of gray and almost to a white before repainted. Then Drake went to what I call a nice charcoal gray color, then the last new cabinets were actually Black, like the R8 series stuff (likely because the new vendors were making black). I think I'll have the local auto paint guy match the best looking one I have and paint all mine just to match and let it go at that!!!!!! Just an idea.
73,
Don, WB5HAK

18897. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 03:13:37 UTC
From: Steve Wedge
Topic: 1054 Message: 18897

How do you find their performance on 10?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Joe W2KJ
Sent: Sunday, February 23, 2014 9:09 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC problem

I certainly agree on the value of Gareys CD's.

I have both the C-line and TR4 series and they have saved me several times over the years from having to send my gear out for repair.

Plus Garey is just a treasure when it comes to Drake equipment.

I've had 4 C-lines of the past 40 years....never could understand why I sold the first three sets....but I'm keeping the fourth (grin).

Recently picked up a very nice TR4CW/RIT that is also a keeper.

I don't know why I keep all of this tube stuff...I have Elecraft K3 and KX3 rigs...solid state and simply outstanding equipment...but I cut my teeth on tube stuff 57 years ago or so and just can't shake them (grin).

I sent a note to Garey earlier about replacing 6JB6's with 6GJ5's....the 6GJ5's work FB and neutralize easily...just make sure to get the "short" version of the 6GJ5...evidently they also make a "tall" version that won't fit properly in the T4XC final cage.....don't ask me how I know!!

73, Joe W2KJ

On Feb 23, 2014, at 8:45 PM, Robert Logan wrote:

>
> I agree. I'm either a terrible procrastinator or a total skinflint to wait so long. Probably both. Bob
>
> Sent from my iPhone
>
> On Feb 22, 2014, at 6:24 PM, James Scribner <swpthg@...> wrote:
>
>
>

> Bob, NZ5A
> Bob, the CD for your Drake will be the second best investment you can make, following the Drake of course! I resent purchased one from Gary and it it just packed with valuable info and color pictures. This is an unsolicited comment, just has helped me on my TR-4 immensely an thought the "Thank you Gary" was over due!
>
> Jim, W5SWM
>
>

18898. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 03:17:15 UTC
From: Eddy Swynar
Topic: 18871 Message: 18898

Hi Rod,

Any & all frequency checks with the Drake PTOs MUST be made with that aluminum can cover IN PLACE...

I have found that with my T-4X, the frequency difference is almost EXACTLY 100-KHz higher with the can off, vs. having the can on...

That's been my personal experience here, FWIW.

~73~ de Eddy VE3CUI - VE3XZ

On 2014-02-23, at 5:39 PM, Steve Wedge wrote:

>
> Rod, it sounds as if either a capacitor is open, or there's a cold solder joint to one of the caps. There are one or two very small value caps that are mounted off the board (flying leads). Check that these are soldered on each end.
>
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: tharlam@...
> Sent: Sunday, February 23, 2014 4:31 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] R4B PTO freq way off
>
>
>
>
> Hello All,
>
> I have an R4B that was given to me. It seems to be working OK except that the PTO frequency is way off.
>
> With the aluminum cover in place, the PTO freq. is about 190 kHz too high (its minimum freq is 5145 kHz, not the 4955 which it should be according to the manual).
> The mechanical stop for the slug seems to be OK as the slug slider gets to about 1mm from the front panel stop when the dial gets to its max rotation.
> I cleaned the slider and spring contact surfaces, which did not change the frequency.
>
> I removed the aluminum PTO cover and found that the min. PTO freq. then dropped to 5004.

> (I would have thought that having the alum. cover around the coil would lower the freq, not raise it, but I guess that shows how little I know.)
> I poked on all the components on the PTO board that I could reach, which only caused the freq. to wiggle 100 Hz or so, no big change.
>
> Would any one have an idea on what might be wrong with the PTO?
>
> The freq. with the cover off, while still too high for proper dial calibration, would allow operation over most of the ham band. Is there any reason not to leave it that way until I can find a proper fix?
>
> Thanks and 73,
> Rod, VE7VV
>
>
>
>

18899. Re: [DrakeRadio] Files and Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 03:19:52 UTC
From: Garey Barrell
Topic: 18857 Message: 18899

Bernie -

Actually any member can post files and/or photos. Just click on FILES or PHOTOS just under the banner photo. Either
'Upload' a file, or 'New Album' for a photo. One of the "NICE" things about the 'new' Yahoo that so many are b%#^$ing
about is essentially unlimited space for photos (100 GB v the 300 MB we've used) and plenty of file space too, (100 MB v
20 MB we've used).

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

barcand@... wrote:
> Yahoo Groups strips off all attachments including pictures. The only way
> to get a picture into this list is to send it to the e-mail of one of the
> list moderators and he can post it into the photos or files.
>
> Bernie in ND
> WD0GMD
>
>

18900. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 03:46:20 UTC
From: Jim Shorney
Topic: 18859 Message: 18900

The other pins on the one I had were of a different spacing. I suppose to prevent the yoke from being plugged in wrong. Not all monitors used this connector either, but it was somewhat of a quasi-standard for a little while.

I miss the days when you could swap the yoke connectors on the old IBM mono monitors and flip the screen or reverse it. Great fun!

73

-Jim
NU0C

On Sun, 23 Feb 2014 17:19:09 -0500, Bill Gaines wrote:

>It just so happens I have a CRT monitor in the garage. Before I tear it apart, will It be possible to get two of these item from one monitor or will I need to salvage another monitor somewhere?
>
>Bill
>
>Thank you by the way.
>
>
>
>From: Jim Shorney
>Sent: Sunday, February 23, 2014 5:02 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] L4B Relay Connector
>
>
>
>Quite by accident I found out that the four-pin inline flyback connector on
>many older CRT monitor boards has two pins that are almost exactly the correct
>spacing. Of course, you need to have easy access to scrap monitor boards to
>find one. I got lucky, as they aren't as easy to find these days as they used
>to be.
>
>73
>
>-Jim
>NU0C
>
>On Sun, 23 Feb 2014 16:21:11 -0500, Bill Gaines wrote:
>
>>If that is the case, what are most doing to cope with the problem?
>>

>>Thanks
>>Bill AD8P
>>
>>From: vacuuminded2@...
>>Sent: Sunday, February 23, 2014 4:19 PM
>>To: DrakeRadio@yahoogroups.com
>>Subject: Re: [DrakeRadio] L4B Relay Connector
>>
>>
>>
>>If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been able to nail down anything to secure NOS stock or have them custom made.
>>
>>Chris
>>
>>Sent from my outdated iPhone wireless thingy
>>
>>On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...> wrote:
>>
>>
>>
>> I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one source. Just let me know off line. No need to clog the reflector with this info.
>>
>> I am anxiously looking forward to getting this stuff on the air.
>>
>> Bill AD8P
>>
>
>--
>
>"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

18901. Re: [DrakeRadio] Files and Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 04:01:09 UTC
From: barcand@...
Topic: 18857 Message: 18901

Thanks, Garey. I didn't know that.

Bernie

On Sun, February 23, 2014 9:19 pm, Garey Barrell wrote:
> Bernie -
>
> Actually any member can post files and/or photos. Just click on FILES or
> PHOTOS just under the banner photo. Either
> 'Upload' a file, or 'New Album' for a photo. One of the "NICE" things
> about the 'new' Yahoo that so many are b%#^$ing
> about is essentially unlimited space for photos (100 GB v the 300 MB we've
> used) and plenty of file space too, (100 MB v
> 20 MB we've used).
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> barcand@... wrote:
>> Yahoo Groups strips off all attachments including pictures. The only
>> way
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>> the
>> list moderators and he can post it into the photos or files.
>>
>> Bernie in ND
>> WD0GMD
>>
>>
>
>

18902. Re: [DrakeRadio] 7-Line paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 13:12:47 UTC
From: Chgypsy@...
Topic: 18857 Message: 18902

pulsarxp@... writes:

If my eyes serve me correctly, the paint is a very dark gray getting close to black.
Don't know how close to black it really is, but it is a shade of gray.
I do know that there a fair amount of them painted with a Krylon semi flat black as a fairly close match.
Can't imagine someone using a gloss.
Drake did in fact on a replacement basis have the original TR7 cabinets painted a soft black by Hartzell rather than the gray. As a side comment Hartzell is no longer do piecework painting.
Archives or others comments???
Good luck, Carl wd8nhk

18903. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 13:18:40 UTC
From: Chgypsy@...
Topic: 18903 Message: 18903

How come I can never come up with deals like that....geez... wd8nhk

pulsarxp@... writes:

. I could not pass it up for $25.00. Lee, w0vt

18904. Re: 7-Line paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 13:48:31 UTC
From: Joe Pyles
Topic: 18857 Message: 18904

The early 7 line cabinets were painted with a gray paint that was supposed 'heal' when scratched. They did not know at the time that after a couple of years the paint would degrade into the sticky mess that it turned out to be.
The later Cabinets were not painted, the were vinyl clad dark gray.
Sometime in around the 90s the demand for replacement cabinets was great enough that Drake made some however the only material that they had on hand was black vinyl clad.
The black cabinets were only on replacement parts, they never used on original radios.

73, Joe KC9LAD

18905. Re: [DrakeRadio] TR4cw audio output transformer open -- need recommendation

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 15:01:02 UTC
From: Leon Zebrick
Topic: 18866 Message: 18905

That's a big help Garey. I've already ordered the Bogen. It's about a half inch wider than the one it's replacing but I think it will just make it in. I removed the PTO last night to access the transformer mounting hardware. Fringe benefit will be PM of the PTO while its out. It needs it. Thanks again.

Sent from my iPhone

On Feb 23, 2014, at 4:29 PM, Garey Barrell <k4oah@...> wrote:

> Leon -
>
> Must have missed your post... Yep, there seems to be a rash of those lately. Hope it's not an 'end of life'
> situation!! :-)
>
> Best chance aside from a donor unit is the Bogen T725. You need to select the right lead, I'm going from memory here,
> but I 'think' it's the Green lead to the Plate of V17, and the _BLACK_ lead to the Plate supply. The Pink leads are the
> speaker leads. Just remember you're interested in 'impedance', not turns ratio. The Plate load is 2500 to 4 ohms to
> match the Drake speakers.
>
> Available from just about any supplier, including Amazon!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Leon Zebrick wrote:
> >
> >
> > No plate voltage on V17 pin 5. T15 primary winding is open. Drake part number for the transformer is (was) 369-0120.
> > Can anyone specify a suitable replacement? Somewhat familiar with the Hammond line of transformers, but I do not
> > know which one to buy. Thanks! N5LAZ
> >
> >
> >
>

>

18906. AW: Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 16:00:55 UTC
From: Dieter Horst
Topic: 18906 Message: 18906

How come I thought exactly the same...
73s Dieter DL5RDO

-------- Ursprüngliche Nachricht --------
Von: Chgypsy@aol.com
Datum: 24.02.2014 14:18 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: Re: [DrakeRadio] WH7

How come I can never come up with deals like that....geez... wd8nhk
 pulsarxp@embarqmail.com writes:
. I could not pass it up for $25.00. Lee, w0vt

18907. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 16:53:42 UTC
From: <ckepus@...>
Topic: 18903 Message: 18907

Does anyone know the PN of the diodes used in the WH7? Schematic only calls them out as CR1 and CR2 - no further ID in the manual. Tnx es 73,
Chris
W7JPG

18908. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 17:08:40 UTC
From: Chgypsy@...
Topic: 18903 Message: 18908

Chris, Having gone through this on several Drake wattmeters...typically would be 1N295's by memory, but I will look if you like. Or better yet look them up on a schematic for an MN2700 Carl wd8nhk

ckepus@... writes:
Does anyone know the PN of the diodes used in the WH7? Schematic only calls them out as CR1 and CR2 - no further ID in the manual. Chris W7JPG

18909. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 17:52:19 UTC
From: Dino Papas
Topic: 18903 Message: 18909

The W-4 and MN-2000 meters used the 1N295 which according to my notes from my MN-2000 repair from eons ago the 1N34 was a good replacement according to Drake when I called them in 1989! I'd guess that although the circuits are a little different between the 4 and 7-line units that the diodes were most likely the same.

Dino KL0S

On Feb242014, at 1208 PM, Chgypsy@...m wrote:

>
> Chris, Having gone through this on several Drake wattmeters...typically would be 1N295's by memory, but I will look if you like. Or better yet look them up on a schematic for an MN2700 Carl wd8nhk
>
> ckepus@... writes:
> Does anyone know the PN of the diodes used in the WH7? Schematic only calls them out as CR1 and CR2 - no further ID in the manual. Chris W7JPG

18910. RE: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 18:04:09 UTC
From: Chris Kepus
Topic: 18903 Message: 18910

Hi Carl,

Thanks for your response. Yep, the MN-2000 uses 1N295's.

I see a couple of sites have a few 1N295's available. An old QRZ.com thread about diode replacement options to resuscitate a dead MN2000 stated the NTE 109 was the 1N295 replacement or you could "substitute with a 1N34A or 1N270 germanium - which are used in detection circuits of many RF/SWR Meters." Any comments about these replacement suggestions?

It is also interesting to compare the MN-2000 wattmeter components / circuitry to that of the MN-7. Basically the same as one might expect but with some little component value tweaks here and there.

Hmmmm.

Thanks agn,

73

Chris

W7JPG

From: Chgypsy@... [mailto:Chgypsy@...]
Sent: Monday, February 24, 2014 9:09 AM
To: DrakeRadio@yahoogroups.com
Cc: ckepus@...
Subject: Re: [DrakeRadio] WH7

Chris, Having gone through this on several Drake wattmeters...typically would be 1N295's by memory, but I will look if you like. Or better yet look them up on a schematic for an MN2700 Carl wd8nhk

ckepus@... writes:
Does anyone know the PN of the diodes used in the WH7? Schematic only calls them out as CR1 and CR2 - no further ID in the manual. Chris W7JPG

18911. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 18:07:54 UTC
From: Garey Barrell
Topic: 18903 Message: 18911

Chris -

The originals were AA119 diodes. These are Germanium diodes, 30V PIV and 10 mA.

They are available, but take a little looking. I think Newark had them the last time I looked, ~$2 each.

Other choices would be the 1N295, used in the W-4; the 1N270 generally available; The 1N277 ?; NTE109.

Second choice would be a Schottky like HP2800, 1N5711, etc. These would work fine, but might be slightly different in
the non-linear part of the scale, very low powers.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

ckepus@... wrote:
>
>
> Does anyone know the PN of the diodes used in the WH7? Schematic only calls them out as CR1 and CR2 - no further ID
> in the manual.
> Tnx es 73,
> Chris
> W7JPG
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7120 - Release Date: 02/24/14
>

18912. Re: Drake Paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 18:14:42 UTC
From: L L bahr
Topic: 18912 Message: 18912

Hi Lee, Yes I have painted 4-line cabinets. I am not a professional painter, but have had great results. First off there were two types painted by Drake. for 4-lines. The plain Satin Black type and the "spattered" black type. Most of my repaint jobs needed to have the "spattered" type look to them. That is, a Satin base coat and then "spattered" with a light Gloss Black paint. If you want a really nice professional look to your base coat and want to do it yourself, don't use hardware store spray can paint. It always shows "hot spot's. At least for me that is the case. I buy some automotive Black Satin auto paint from an automotive paint store and then put it into a PREVAL throw away paint bottle driven by a PREVAL compressed air throw away canister. This really gives you a great Satin paint job. (Lacquer is the best. Much better then the $5.00 spray paint cans.) The PREVAL bottle and air canisters can be purchased at The Home Depot and many other places. Using the PREVAL system never gives me "hot spots". Then to apply the black gloss paint I take a $5.00 can of High Gloss paint and enlarge the nozzle hole so the paint "spatters" out of the can rather then come out a fine spray. You need to practice what distance you need to use to give you the correct size gloss droplets. Once done, you will be hard pressed to see a difference from a Drake original. The PREVAL system and automotive paint base coat separates an OK job from an outstanding repaint job. If you have an early 4-line, I'd suspect all you need is a Satin Base coat on your cabinet. Hope this helps.
Lee, w0vt

Hi Lee...

"I don't know anything about 7-line painting, but would appreciate any guidance you might have on the 4-line grays. I've got a box I'd like to paint to match my R-4 and hints would be appreciated. Especially something easy like Krylon in a can!"

73 de Lee

--
Lee Hiers, AA4GA
www.aa4ga.com

18913. T-4X gears skipping?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 19:19:02 UTC
From: Steve Wedge
Topic: 18913 Message: 18913

Got this T-4X on the bench. It was working prior to my partially disassembling it and cleaning. The beveled gears the feed the shaft over to the band oscillator and premixer may have skipped a tooth. I had to unbend the detent and had removed it, then replaced it. Now, all I can get this transmitter to do is show idle current. The switch contact on the band oscillator seems to lose its centering when it gets up to the 10m end.

I can't get those gears to skip a tooth by holding one and turning the shaft, but this seems definitely odd.

Anyone ever had to deal with this?

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18914. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 19:24:34 UTC
From: <ckepus@...>
Topic: 18903 Message: 18914

OK, thanks for that info, Garey. I'll annotate my manual. Good stuff! :-) 73,
Chris
W7JPG

18915. Re: [DrakeRadio] WH7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 19:25:57 UTC
From: <ckepus@...>
Topic: 18903 Message: 18915

Dino, Thanks for that info.
73,
Chris
W7JPG

18916. Re: [DrakeRadio] T-4X gears skipping?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 20:06:29 UTC
From: Garey Barrell
Topic: 18913 Message: 18916

Steve -

Not specifically, but perhaps someone has been 'fixing' it!

The right angle drive combo limited by the BAND switch detent has a fairly limited range for error.

Make sure the BAND switch shaft hasn't been put back 180 degrees out.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
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> feed the shaft over to the band oscillator and premixer may have skipped a tooth. I had to unbend the detent and had
> removed it, then replaced it. Now, all I can get this transmitter to do is show idle current. The switch contact on
> the band oscillator seems to lose its centering when it gets up to the 10m end.
> I can't get those gears to skip a tooth by holding one and turning the shaft, but this seems definitely odd.
> Anyone ever had to deal with this?
>

18917. Re: [DrakeRadio] Drake R7A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 20:51:16 UTC
From: Chgypsy@...
Topic: 18917 Message: 18917

Hello all,
For any of you that might be in the market for a Drake R7A
www.randl.com (http://www.randl.com)
has one, looks clean enough and they have checked it out.

Right now on Ebay they have the accessories for a TR7, in that the speech processor, W7 watt meter, and the adapter harness cable for attaching to an R7A .
CR.. I don't have that kind of $ available Carl wd8nhk

18918. Re: [DrakeRadio] T-4X gears skipping?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 20:57:21 UTC
From: Steve Wedge
Topic: 18913 Message: 18918

The detent on the back was 180 out. The alignment is still not perfect. Carrier oscillator seems to have some modulation on it and only oscillates when rig is in xmit (which, IIRC, is normal).

Rig still not transmitting so there's something else wrong. Can't get the band osc to work on 10 at all.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Monday, February 24, 2014 3:06 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4X gears skipping?

Steve -

Not specifically, but perhaps someone has been 'fixing' it!

The right angle drive combo limited by the BAND switch detent has a fairly limited range for error.

Make sure the BAND switch shaft hasn't been put back 180 degrees out.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> Got this T-4X on the bench. It was working prior to my partially disassembling it and cleaning. The beveled gears the
> feed the shaft over to the band oscillator and premixer may have skipped a tooth. I had to unbend the detent and had
> removed it, then replaced it. Now, all I can get this transmitter to do is show idle current. The switch contact on
> the band oscillator seems to lose its centering when it gets up to the 10m end.
> I can't get those gears to skip a tooth by holding one and turning the shaft, but this seems definitely odd.
> Anyone ever had to deal with this?
>

18919. Re: Drake Paint

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 21:10:18 UTC
From: Mark Gilger
Topic: 18912 Message: 18919

Lee,
You might find the following document helpful.

http://wb4hfn.com/DRAKE/DrakeArticles/TechTips/CabinetRepainting.htm

Regards,
Mark, WB0IQK

18920. Re: [DrakeRadio] Drake R7A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 21:43:33 UTC
From: <w7apm@...>
Topic: 18917 Message: 18920

I just bought the R7A...I have a TR7A and a R7. I suppose I will sell the R7 now.

Marty

KL7AM

--- Chgypsy@aol.com wrote:

From: Chgypsy@aol.com
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake R7A
Date: Mon, 24 Feb 2014 15:51:16 -0500 (EST)

Hello all,

For any of you that might be in the market for a Drake R7A www.randl.com (http://www.randl.com)

has one, looks clean enough and they have checked it out.

Right now on Ebay they have the accessories for a TR7, in that the speech processor, W7 watt meter, and the adapter harness cable for attaching to an R7A .

CR.. I don't have that kind of $ available Carl wd8nhk

18921. Re: [DrakeRadio] Drake R7A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-24 23:03:18 UTC
From: Evan Rolek
Topic: 18917 Message: 18921

I've always wondered where they get this gear from since I was told they don't take "orphans" in on trade.

-----Original Message-----
From: Chgypsy <Chgypsy@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Feb 24, 2014 3:51 pm
Subject: Re: [DrakeRadio] Drake R7A

Hello all,
For any of you that might be in the market for a Drake R7A www.randl.com
has one, looks clean enough and they have checked it out.

Right now on Ebay they have the accessories for a TR7, in that the speech processor, W7 watt meter, and the adapter harness cable for attaching to an R7A .
CR.. I don't have that kind of $ available Carl wd8nhk

18922. Re: [DrakeRadio] T-4X gears skipping?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 02:28:30 UTC
From: Garey Barrell
Topic: 18913 Message: 18922

Yes, the CAR OSC is 'keyed' by the 'xmit bus'.

Bad crystal??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> The detent on the back was 180 out. The alignment is still not perfect. Carrier oscillator seems to have some
> modulation on it and only oscillates when rig is in xmit (which, IIRC, is normal).
> Rig still not transmitting so there's something else wrong. Can't get the band osc to work on 10 at all.
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> *From:* Garey Barrell <mailto:k4oah@...>
> *Sent:* Monday, February 24, 2014 3:06 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] T-4X gears skipping?
>
> Steve -
>
> Not specifically, but perhaps someone has been 'fixing' it!
>
> The right angle drive combo limited by the BAND switch detent has a fairly limited range for error.
>
> Make sure the BAND switch shaft hasn't been put back 180 degrees out.!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Steve Wedge wrote:

> >
> >
> > Got this T-4X on the bench. It was working prior to my partially disassembling it and cleaning. The beveled gears the
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> > removed it, then replaced it. Now, all I can get this transmitter to do is show idle current. The switch contact on
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> > I can't get those gears to skip a tooth by holding one and turning the shaft, but this seems definitely odd.
> > Anyone ever had to deal with this?
> >
>
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>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7120 - Release Date: 02/24/14
>

18923. Re: [DrakeRadio] Drake R7A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 03:07:31 UTC
From: Jim Shorney
Topic: 18917 Message: 18923

Yikes. The bidding on that 1544 is insane. You can make your own for 1/10 the cost.

73

-Jim
NU0C

On Mon, 24 Feb 2014 15:51:16 -0500 (EST), Chgypsy@... wrote:

>
>Right now on Ebay they have the accessories for a TR7, in that the speech processor, W7 watt meter, and the adapter harness cable for attaching to an R7A .

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

18924. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 03:24:36 UTC
From: <tharlam@...>
Topic: 18871 Message: 18924

Hello Garey and others,
Here is more info. I hope you this will give you more to go on for helping me.
(Note, all freq.'s below are with the alum. cover in place.)

Before changing anything here is what the PTO was showing.
Full CCW dial rotation, dial stops at <> (beyond the .500 (top)/1.000(bot) marking.
Freq. 5145 Hz. This was the minimum available PTO freq.
The manual says the minimum freq. for the 500 Hz tuning range should be 4955, but I believe that at the <> point is should be even lower, maybe 4900. (The PTO is marked 4.9 to 5.5.)
Thus the freq. is at least 190 Hz too high, maybe 245 Hz too high.

After adding an extra 10 pf of capacitance to the PTO (added across the coil):
Full CCW dial rotation, dial stops at <> (beyond the .500 (top)/1.000(bot) marking.
Freq. 4919 Hz. This is the minimum available PTO freq.
Dial at .500(top)/1.000(bot) marking.
Freq. 4978 Hz.
Full CW dial rotation, dial stops at 0.000(top)/.500(bot) marking.
Freq. 5408 Hz.
The minimum freq. is now close to what it should be, but total tuning range is only 489 Hz, not 500 or 600 Hz, so something is still wrong.

The problem may be mechanical rather than electrical.
The slug slider appears to move as far in both directions as is mechanically possible.
However, I see that the slug screw has quite a bit of thread showing when the slider is at the maximum insertion point, suggesting to me that the slug might actually be able to go further into the coil to produce a lower freq.
I have uploaded two photos showing the current max./min. travel of the slider, see:
http://members.shaw.ca/drrg/temp/ http://members.shaw.ca/drrg/temp/
If the slug rod is out of position on the slider control, how does one fix that?

Thanks for any and all advice.

Rod, VE7VV

18925. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 03:46:25 UTC
From: Garey Barrell
Topic: 18871 Message: 18925

Rod -

OK, the photo shows what I thought might be the problem. The travel is displaced WAY toward the front. If you look
down on the right side of the gears in front of the gearbox, you'll see a spring loaded pin that makes the mechanical
stop by extending into a detent on the back of the gear. If you push that pin back in long enough to get the roll pin
extending from another gear to get past and allow you to make another full turn. Based on how far forward the follower
is, you may have to go past the stop twice.

It takes some fiddling, and you'll be able to see what it's doing easier than I can explain it by typing!! You should
have 20 turns of the MAIN tuning knob, and exactly 500 kHz spread, with the frequencies at 4.955 and 5.455, plus (or
minus) another 25 kHz past those end points. The follower should travel close to the full length of the drive screw.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tharlam@... wrote:
>
>
> Hello Garey and others,
> Here is more info. I hope you this will give you more to go on for helping me.
> (Note, all freq.'s below are with the alum. cover in place.)
>
> Before changing anything here is what the PTO was showing.
> Full CCW dial rotation, dial stops at <> (beyond the .500 (top)/1.000(bot) marking.
> Freq. 5145 Hz. This was the minimum available PTO freq.
> The manual says the minimum freq. for the 500 Hz tuning range should be 4955, but I believe that at the <> point is
> should be even lower, maybe 4900. (The PTO is marked 4.9 to 5.5.)
> Thus the freq. is at least 190 Hz too high, maybe 245 Hz too high.
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> After adding an extra 10 pf of capacitance to the PTO (added across the coil):
> Full CCW dial rotation, dial stops at <> (beyond the .500 (top)/1.000(bot) marking.
> Freq. 4919 Hz. This is the minimum available PTO freq.
> Dial at .500(top)/1.000(bot) marking.
> Freq. 4978 Hz.

> Full CW dial rotation, dial stops at 0.000(top)/.500(bot) marking.
> Freq. 5408 Hz.
> The minimum freq. is now close to what it should be, but total tuning range is only 489 Hz, not 500 or 600 Hz, so
> something is still wrong.
>
> The problem may be mechanical rather than electrical.
> The slug slider appears to move as far in both directions as is mechanically possible. However, I see that the slug
> screw has quite a bit of thread showing when the slider is at the maximum insertion point, suggesting to me that the
> slug might actually be able to go further into the coil to produce a lower freq.
> I have uploaded two photos showing the current max./min. travel of the slider, see:
> http://members.shaw.ca/drrg/temp/
> If the slug rod is out of position on the slider control, how does one fix that?
>
> Thanks for any and all advice.
>
> Rod, VE7VV
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7122 - Release Date: 02/24/14
>

18926. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 04:22:49 UTC
From: Richard Knoppow
Topic: 18871 Message: 18926

Check the stop but also check the dial. The dial is
on a friction hub and can be slipped with your fingers.
There is a stop which is part of the gear mechanism. If the
gear has slipped the frequency can be way off but it will be
off in the same direction on both ends (i.e., too high or
too low). Take your extra cap off and check the stop and
dial position. Note that the shield can _must_ be in place
for the range to be correct.
The stop works by means of a pin which is moved by a
cam. If the lubrication has dried out it may not work
properly allowing the drive gear to go too far.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

----- Original Message -----
From: <tharlam@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, February 24, 2014 7:24 PM
Subject: Re: [DrakeRadio] R4B PTO freq way off

> Hello Garey and others,
> Here is more info. I hope you this will give you more to
> go on for helping me.
> (Note, all freq.'s below are with the alum. cover in
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>
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> 4.9 to 5.5.)
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> Dial at .500(top)/1.000(bot) marking.
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> I have uploaded two photos showing the current max./min.
> travel of the slider, see:
> http://members.shaw.ca/drrg/temp/
> http://members.shaw.ca/drrg/temp/
> If the slug rod is out of position on the slider control,
> how does one fix that?
>
> Thanks for any and all advice.
>
> Rod, VE7VV
>

18927. TR-4C S-meter saga continues!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 08:43:27 UTC
From: k7mks@...
Topic: 18927 Message: 18927

On 40m receive in LSB S meter reads steady at 0 as C-130 is turned. On USB S meter moves between 0 - 1.5 or so when C-130 turned

The opposite is true on 20m - steady S meter on USB .S-meter movement from 0 - 1.5 or so on LSB w/ C-130 turning.

C-130 had been adjusted for equal white noise on either sideband.

Same test run on my TR4-CW/RIT shows no S-meter movement off 0 in LSB and USB when C-130 turned.

Garey K4OAH emailed a procedure for filter evaluation - both filters appear within specs.

And the search for the gremlin continues

Thanks joe k7mks

18928. Re: [DrakeRadio] T-4X gears skipping?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 13:54:32 UTC
From: Steve Wedge
Topic: 18913 Message: 18928

Will have to try subbing. It was working fine before I refurbed it. Have never had one fail before after this, but there's always a first time. It was working marginally when I first fired it up (It keyed okay and didn't smoke - no idle current, due to totally dead finals). Had it going over 100W on all bands before taking it apart. The rear bandswitch detent was bent, rendering the bandswitch detents mushy-to-nonexistent. I removed the detent assembly and straightened it, reinstalled it where I thought it should go and, of course, it was 180 out. I do believe it's in correctly now.

Got a lot of real estate stuff to do today, so this will have to wait. The rig looks marvelous, so it's worth continuing.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Monday, February 24, 2014 9:28 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4X gears skipping?

Yes, the CAR OSC is 'keyed' by the 'xmit bus'.

Bad crystal??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
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> modulation on it and only oscillates when rig is in xmit (which, IIRC, is normal).
> Rig still not transmitting so there's something else wrong. Can't get the band osc to work on 10 at all.
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>

> *From:* Garey Barrell <mailto:k4oah@...>
> *Sent:* Monday, February 24, 2014 3:06 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] T-4X gears skipping?
>
> Steve -
>
> Not specifically, but perhaps someone has been 'fixing' it!
>
> The right angle drive combo limited by the BAND switch detent has a fairly limited range for error.
>
> Make sure the BAND switch shaft hasn't been put back 180 degrees out.!
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Steve Wedge wrote:
> >
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> > Got this T-4X on the bench. It was working prior to my partially disassembling it and cleaning. The beveled gears the
> > feed the shaft over to the band oscillator and premixer may have skipped a tooth. I had to unbend the detent and had
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> > I can't get those gears to skip a tooth by holding one and turning the shaft, but this seems definitely odd.
> > Anyone ever had to deal with this?
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>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7120 - Release Date: 02/24/14
>

18929. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 16:12:23 UTC
From: Robert Logan
Topic: 1054 Message: 18929

Gary, did you get my voltage readings on C107 and pin 2 of V9 in Tune, SSB, and CW?

Might not have passed through the first time. Also, got your CD. Thanks. Bob

Sent from my iPhone

18930. TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 16:28:48 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 18930

Hi Guys,

New to the Drake fold :) - I'm used to restoring and repairing Heathkit, Swan and Ten Tec mostly (as well as the modern radio's including - takes deep breath - surface mount !!!)

I've often admired Drake gear and love to bring - shall we say 'older' radio's (yes including valves!) back to life. I also repair for others when they have 'given up'.

Now to my new acquisition, just got a TR5 (still to be picked up so don't know what condition its in really) and would like to know any 'common' issues with it (are there any) I know not too many were made so perhaps not many survived this long. It also comes with a PS75,

I've a manual - easy find on the web :) - but does anyone have a schematic that they would be prepared to let me have - pdf or scan would be very helpful.

Anyway I plan a full review and restoration so look forward to sharing some pics with anyone that's interested!

thanks
Chris
M1ABK

18931. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 17:04:27 UTC
From: Garey Barrell
Topic: 18930 Message: 18931

Chris -

Yes, a rare bird! I have sent a schematic under separate cover, which is apparently even 'rarer' in the wild! :-) It
was large format, so was easily separated from other docs.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

chrismortlock1@... wrote:
>
>
> Hi Guys,
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> New to the Drake fold :) - I'm used to restoring and repairing Heathkit, Swan and Ten Tec mostly (as well as the
> modern radio's including - takes deep breath - surface mount !!!)
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> Now to my new acquisition, just got a TR5 (still to be picked up so don't know what condition its in really) and would
> like to know any 'common' issues with it (are there any) I know not too many were made so perhaps not many survived
> this long. It also comes with a PS75,
>
> I've a manual - easy find on the web :) - but does anyone have a schematic that they would be prepared to let me have
> - pdf or scan would be very helpful.
>
> Anyway I plan a full review and restoration so look forward to sharing some pics with anyone that's interested!
>
> thanks
> Chris
> M1ABK
>
>
>
>

> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7124 - Release Date: 02/25/14
>

18932. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 17:05:39 UTC
From: Garey Barrell
Topic: 18930 Message: 18932

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>

[Non-text portions of this message have been removed]

18933. R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 18:18:02 UTC
From: <dcoffman@...>
Topic: 18933 Message: 18933

I have upgraded a recently purchased R-4C with the Sherwood power supply, audio board and Hayseed Ham's caps. Prior to the upgrade, the unit worked as it should, following the upgrade, I have lost the audio output. When attached to an antenna, the S-meter bounces bank and forth with received signals, so I'm comfortable that the receiver is working properly however; there is no audio output. I have traced the wiring on both boards a number of times to ensure that I did not lose power to any components. I placed my Oscilloscope on the wiper of the AF gain pot and do not see a signal. I was wondering if anyone else had had this issue when upgrading the components or may have a suggestion for a troubleshooting starting point.

I have a local elmer that frequents this group quite often that will find it quickly however; I was trying to avoid troubling him with the issue and try to find it while its on my bench. I'm sure its a simple issue but I am not talented enough to find it.

Regards,

Doug - N9XTF

18934. Re: [DrakeRadio] R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 18:51:41 UTC
From: Garey Barrell
Topic: 18933 Message: 18934

Doug -

Serves you right!!! Some people never learn.... :-)

You didn't mention the 3rd IF replacement or the Product Detector replacement.

My guess is the input or output of the Audio Board. You'll probably find a missed, broken or damaged connection. With
the AF GAIN control set above 50%, touch your finger to the center terminal. You should get a hum or buzz from the
speaker. If not, the problem is 'past' the AF GAIN control. If you do get the buzz, it's earlier in the radio.

73, Garey - K4OAH
Glen Allen, VA

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> signal. I was wondering if anyone else had had this issue when upgrading the components or may have a suggestion for
> a troubleshooting starting point.
>
>

18935. TR-4C S meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 18:57:37 UTC
From: k7mks@...
Topic: 18935 Message: 18935

I'd appreciate a quick email indicating,. from those who have a TR-4C in good working condition, if your S-meter correctly "zeros" on both UPPER and LOWER sideband. This is with no signal input and the receiver "white noise" is similar in sound in both UPPER and LOWER.

The reason for this request is that I have heard that the some TR-4C's have a tendency to have unequal S-meter readings when zeroed
on one sideband.

Thank you,

Joe K7MKS

18936. TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 19:03:24 UTC
From: Allen Jones
Topic: 18936 Message: 18936

I have much higher S-Meter readings on my TR-7 when using the 1.8 KHz filter, very noticeable with weak signals. S2 reading on the stock SSB filter increase to S4-5 using the narrow filter as well as an increase in background noise.

I checked the sensitivity with my Wavetek generator and get a S-9 reading with 50uv in on 14.3 Mhz. When I use the narrow filter the reading increases to 10db over S-9. I also see a noticeable difference in the MDS.

Wonder if anyone else has experienced this or do I start looking for a problem?

Thanks

Allen, W9DZ

18937. Re: [DrakeRadio] TR-4C S meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 19:29:04 UTC
From: Garey Barrell
Topic: 18935 Message: 18937

I'm still having trouble deciphering what you are talking about.

When you did the filter bandwidth check by listening to the Calibrator as I described earlier, were the two 'tops' at
about the same S-Meter reading??

I can see that 'background' noise can be different on different sidebands. This is usually a result of differences in
bandwidth of the two filters, and any 'pre-filters' Per my previous, you say that both filters are showing correct (~
2.5 kHz) bandwidths. Extreme excursions of the CAR OSC (C130) can vary the 'noise power' in each filter by moving it to
the edge of the IF transformer tuning. Think of the IF transformer passband as a filter. Changing C130 'moves' the two
crystal filter passbands around that IF passband. IF a passband is moved too far, the noise could decrease in one
sideband by being outside the transformer passband, or at least down on it's skirt.

Can you set C130 for 9.000 MHz using either a counter or by listening on a general coverage receiver?? It really
shouldn't be very far (+/- 100-200 Hz?) from that.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

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> The reason for this request is that I have heard that the some TR-4C's have a tendency to have unequal S-meter
> readings when zeroed
> on one sideband.
>

18938. Re: [DrakeRadio] TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 19:32:32 UTC
From: Garey Barrell
Topic: 18936 Message: 18938

Sounds like a problem with the standard filter or it's switching diodes. Does the passband 'look' about the same on
both? Tuning across the Calibrator.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

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> Allen, W9DZ
>

18939. Re: [DrakeRadio] R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 19:35:02 UTC
From: Doug
Topic: 18933 Message: 18939

Gary,

Yes I'm a big bull in a china shop; my father has given me grief for this since I was a kid.

I did the power supply board because both R-4c receivers that I have recently acquired have dis colored traces, repaired traces and parts replaced. I did the audio board because the audio output seemed to require the AF again to be turned up quite far for a s3 to s5 signal to be heard at a comfortable level. That coupled with the heat generated by the output transistor. For general info, both receivers are later serial numbers with 6Ej7 tubes. The other R4C remains unchanged until I see how this one works out.

After conferring with my Elmer, the product detector or the 3rd mixer change didn't seem applicable to me. I haven't noticed any issue with the third mixer but I may be missing something too.

I placed my finger on the wiper with the AF GAIN at 50% and ranges higher and got nothing from the speaker.

73
N9XTF

Sent from my iPhone

> On Feb 25, 2014, at 13:51, Garey Barrell <k4oah@...> wrote:
>
> Doug -
>
> Serves you right!!! Some people never learn.... :-)
>
> You didn't mention the 3rd IF replacement or the Product Detector replacement.
>
> My guess is the input or output of the Audio Board. You'll probably find a missed, broken or damaged connection. With
> the AF GAIN control set above 50%, touch your finger to the center terminal. You should get a hum or buzz from the
> speaker. If not, the problem is 'past' the AF GAIN control. If you do get the buzz, it's earlier in the radio.
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>
>

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18940. Re: [DrakeRadio] R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 19:43:32 UTC
From: Garey Barrell
Topic: 18933 Message: 18940

Doug -

OK. Then the problem is AFTER the wiper of the AF GAIN control. This probably connects to the input of the Audio
board, either via wire or possibly a coupling capacitor. This connection is the first suspect. IF this is good, the
next would be the OUTPUT connections to the audio board. These go to the PHONES jack and SPEAKER jack. I'm going to
suggest the connection to the PHONES jack, as this is a 'shorting' type that interrupts the SPEAKER circuit when phones
are plugged into it. It has three terminals rather than the typical two of a 'plain' jack. Connecting the Audio board
output to the wrong terminal is a possibility. IF this is correct, then the Audio board isn't working. Does it have
the proper B+ applied?? B+ on the board where it should be??

73, Garey - K4OAH
Glen Allen, VA

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> I placed my finger on the wiper with the AF GAIN at 50% and ranges higher and got nothing from the speaker.
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> N9XTF
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> Sent from my iPhone
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>> >
>>

18941. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 20:41:26 UTC
From: <tharlam@...>
Topic: 18871 Message: 18941

Richard, Garey -Thanks! That was just the info I needed - it's fixed! Great Group!

You were correct, it was a mechanical problem. It took me a while to figure out just how the dial/gear mechanism works. Your explanations were bang on, but I didn’t get it all straight for a while.

The problem was that, first, the spring loaded pin that falls into the dial gear detent was not doing that. The whole thing was way out of step. Once I corrected that by holding the pin back and rotating the dial so the pin would fall in properly (thanks Garey), the freq was now way off in the other direction. Once I figured out how to separately turn the dial and slug (thanks Richard), I could easily get the PTO freq back to the right place. It was all very simple and quick once I knew what to do.

Reminds me of the old joke about the retired steam engineer called in when the steam engine stopped working. He picked up a hammer and gave it a whack and fixed it, then gave a bill for $10,000. The owner said "$10,000 for one whack"? The engineer said, "No, $1 for the whack, $9999 for knowing where to hit it".

73,
Rod, VE7VV

18942. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 21:12:07 UTC
From: Garey Barrell
Topic: 18871 Message: 18942

Rod -

Richard suggested moving the dial by slipping it on the hub. If you have to go very far, there is a much easier way.
Looking down on top of the gearbox, you'll see that the leftmost nylon gear shaft is pulled toward the hub by a spring.
You may also notice that the hole in the front wall of the gearbox for this shaft is oblong! If you pull out (away from
the hub) on that shaft, the nylon gear is disengaged and you can spin the dial wherever you want it!

Here, you just need your own hammer. We tell you where to hit it at no charge!! :-)

73, Garey - K4OAH
Glen Allen, VA

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> 73,
> Rod, VE7VV
>

18943. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:03:16 UTC
From: Dieter Horst
Topic: 18930 Message: 18943

Hello Chris and group,

I understand you have the schematics already from Garey. If not, I have an original one here and would be prepared to make a high quality scan. BTW, does anyone know why there is none on the web? Any intellectual property issues? Or just the fact that it is a bit awkward to make a good scan out of it...

My TR5 had a little bit of trouble with scratchy switches and pots. Especially the speaker and cw filter switches were annoying because I use them often. A bit of Deoxit did the job.

Apart from that no issues here and nothing known to be common. But that is probably because there are so few in the wild...

It is not so easy to service the TR5 because there are just the schematics but no additional information like placement plan or more help to find out where the component sits. If one could just get hold of the Drake documentation...

The TR5 is not nearly as good as the TR7 but it is a nice radio that I would not want to miss on my bench. And you have to get used to the PTO behaviour. You have to turn in the other direction... ;-)

Good luck!

73, Dieter DL5RDO

Am 25.02.2014 17:28, schrieb chrismortlock1@...:
>
> Hi Guys,
>
>
> New to the Drake fold :) - I'm used to restoring and repairing
> Heathkit, Swan and Ten Tec mostly (as well as the modern radio's
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>
> Anyway I plan a full review a nd restoration so look forward to
> sharing some pics with anyone that's interested!
>
> thanks
> Chris
> M1ABK
>

18944. Re: [DrakeRadio] TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:04:42 UTC
From: <w9dz@...>
Topic: 18936 Message: 18944

Hello Gary,
Yes, I would say that the response sounds OK as I tune across the signal using either filter. But, I also see a difference there as the calibrator signal is 10db stronger when using the narrow filter.

Allen, W9DZ

18945. Re: [DrakeRadio] TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:17:25 UTC
From: Dieter Horst
Topic: 18936 Message: 18945

Definitely an issue, I would say. 10 dB difference is way too much. The signal should be even slightly stronger on the wide filter.
As Garey suggested, check the pin diodes on the filter board. If you are unlucky, your 2.3 kHz filter is bad.
73, Dieter DL5RDO

Am 25.02.2014 23:04, schrieb w9dz@...:
>
> Hello Gary,
> Yes, I would say that the response sounds OK as I tune across the
> signal using either filter. But, I also see a difference there as the
> calibrator signal is 10db stronger when using the narrow filter.
>
> Allen, W9DZ
>
>

18946. An Aha! Moment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:31:47 UTC
From: Steve Wedge
Topic: 18946 Message: 18946

What a difference a day makes.

Got home, fired up the T-4X and started probing more methodically. Signals off V1 and voltage levels were a bit off.

Jiggled the BAL MOD pot, and - surprise! - was able to get some plate current and signal.

Must have been some crud that got on the wiper arm.

Rig still needs a full re-do of the alignment. I think the dirt on the neut cap actually had some capacitance, as the neut seems to be off, and I'm only getting about 30W out, but it's a start.

BTW, checked the alignment of the band osc and pre-mixer switch wafers against another T-4X and they were pretty much spot-on. Band switch still feels mushy, so I may swap it with another, less-nice rig.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

18947. RE: TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:32:01 UTC
From: <gbeat5@...>
Topic: 18930 Message: 18947

Chris -

Jim Garland, W8ZR has the Drake 5-line in his collection.
http://www.w8zr.net/hamshack/ http://www.w8zr.net/hamshack/

Good reference, if required.
w9gb

18948. Re: [DrakeRadio] TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-25 22:49:47 UTC
From: Evan Rolek
Topic: 18936 Message: 18948

Sounds like a possible alignment and/or filter issue.

-----Original Message-----
From: Allen Jones <w9dz@...>
To: drakeradio <drakeradio@yahoogroups.com>
Sent: Tue, Feb 25, 2014 2:03 pm
Subject: [DrakeRadio] TR-7 S-Meter readings with narrow SSB filter

I have much higher S-Meter readings on my TR-7 when using the 1.8 KHz filter, very noticeable with weak signals. S2 reading on the stock SSB filter increase to S4-5 using the narrow filter as well as an increase in background noise.

I checked the sensitivity with my Wavetek generator and get a S-9 reading with 50uv in on 14.3 Mhz. When I use the narrow filter the reading increases to 10db over S-9. I also see a noticeable difference in the MDS.

Wonder if anyone else has experienced this or do I start looking for a problem?

Thanks

Allen, W9DZ

18949. RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 01:08:00 UTC
From: <w9dz@...>
Topic: 18936 Message: 18949

I just did some additional checking. The 10db difference also exists when comparing signal strength using the AM and CW filter.
No problem transmitting so I'm guessing the filter is OK as it is used for all modes according to the service manual. Easy 100+ watts out with the mic gain at 9 o'clock.

How does one go about testing the PIN diodes?

Allen, W9DZ

18950. Re: [DrakeRadio] TR-4C S meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 01:08:04 UTC
From: k7mks@...
Topic: 18935 Message: 18950

Garey: Thanks for a valuable tutorial on filters etc. I'm beginning to feel that the 9.000KHz crystal has moved slightly and may be repl aced. My other TR4-CW/RIT has a 9 MHz filter that is right spot on Will keep you posted

Joe k7mks

----- Original Message -----

From: "Garey Barrell" <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, February 25, 2014 11:29:04 AM
Subject: Re: [DrakeRadio] TR-4C S meter zero

I'm still having trouble deciphering what you are talking about.

When you did the filter bandwidth check by listening to the Calibrator as I described earlier, were the two 'tops' at
about the same S-Meter reading??   NOTE Tops were within 1/2 S unit or so
.

I can see that 'background' noise can be different on different sidebands. This is usually a result of differences in
bandwidth of the two filters, and any 'pre-filters' Per my previous, you say that both filters are showing correct (~
2.5 kHz) bandwidths. Extreme excursions of the CAR OSC (C130) can vary the 'noise power' in each filter by moving it to
the edge of the IF transformer tuning. Think of the IF transformer passband as a filter. Changing C130 'moves' the two
crystal filter passbands around that IF passband. IF a passband is moved too far, the noise could decrease in one
sideband by being outside the transformer passband, or at least down on it's skirt.

Can you set C130 for 9.000 MHz using either a counter or by listening on a general coverage receiver?? It really
shouldn't be very far (+/- 100-200 Hz?) from that.   NOTE C-130 set
 at the highest, to 899.8985

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k7mks@comcast.net wrote:
>
>

>
> I'd appreciate a quick email indicating,. from those who have a TR-4C in good working condition, if your S-meter
> correctly "zeros" on both UPPER and LOWER sideband. This is with no signal input and the receiver "white noise" is
> similar in sound in both UPPER and LOWER.
> The reason for this request is that I have heard that the some TR-4C's have a tendency to have unequal S-meter
> readings when zeroed
> on one sideband.
>

18951. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 01:59:22 UTC
From: geoffrey mendelson
Topic: 18930 Message: 18951

On 2/26/2014 12:03 AM, Dieter Horst wrote:
>
>
>
> My TR5 had a little bit of trouble with scratchy switches and pots.
> Especially the speaker and cw filter switches were annoying because I
> use them often. A bit of Deoxit did the job.
>
Mine occasionally is deaf when I turn it on. A few seconds of CW carrier
on each band cleans it up.

73,
>
>
>

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18952. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 02:03:42 UTC
From: geoffrey mendelson
Topic: 18930 Message: 18952

On 2/26/2014 12:03 AM, Dieter Horst wrote:
>
>
> The TR5 is not nearly as good as the TR7 but it is a nice radio that I
> would not want to miss on my bench. And you have to get used to the
> PTO behaviour. You have to turn in the other direction... ;-)
>

Can you use a microphone wired for a TR5 on a TR-7?

Thanks in advance,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18953. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 02:36:22 UTC
From: Garey Barrell
Topic: 18936 Message: 18953

Perhaps we're coming from the wrong direction... Maybe the narrow filter is shorted? Does this filter show the proper
bandwidth when tuned across the Calibrator signal??

The diodes can be checked in the usual fashion, best is the 'Diode Test' function on a good DMM, usually indicated by a
diode symbol on the range switch.

There are four diodes associated with each filter one Series and one Shunt on each end. The Series diode should be
conducting and the Shunt diode reverse biased on both ends of the filter selected. This is reversed when a filter is
NOT selected. Probably wouldn't hurt to check the -5V supply too. It is typically -3.5 V or so.

I think you said you didn't have extender cards, so the best that you'll be able to do is the ohmmeter check with the
board pulled out. If you had extenders you could check the voltage on each end of each diode and tell if they were 'on'
or 'off'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w9dz@... wrote:
>
>
> I just did some additional checking. The 10db difference also exists when comparing signal strength using the AM and
> CW filter.
> No problem transmitting so I'm guessing the filter is OK as it is used for all modes according to the service manual.
> Easy 100+ watts out with the mic gain at 9 o'clock.
>
> How does one go about testing the PIN diodes?
>
> Allen, W9DZ
>
>

18954. Re: [DrakeRadio] TR-4C S meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 02:46:10 UTC
From: Garey Barrell
Topic: 18935 Message: 18954

OK.... That's slightly low, obviously, so maybe you can't get close enough to one filter. With it turned all the way
up, you probably still have 'hissy' audio on that sideband.

Just to be careful, check the relay K2 contacts. Back corner near the CAR OSC. The relay should be de-energized in
SSB, and the NC closed contacts short out a 68 pF cap in series with the crystal to ground. If that ground (contacts)
isn't good I would expect the frequency to be higher, not lower.

You may just be fighting crystal aging.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k7mks@... wrote:
>
>
> Garey: Thanks for a valuable tutorial on filters etc. I'm beginning to feel that the 9.000KHz crystal has moved
> slightly and may be repl aced. My other TR4-CW/RIT has a 9 MHz filter that is right spot on Will keep you posted
> Joe k7mks
>
> ---
> *From: *"Garey Barrell" <k4oah@...>
> *To: *DrakeRadio@yahoogroups.com
> *Sent: *Tuesday, February 25, 2014 11:29:04 AM
> *Subject: *Re: [DrakeRadio] TR-4C S meter zero
>
> I'm still having trouble deciphering what you are talking about.
>
>
> When you did the filter bandwidth check by listening to the Calibrator as I described earlier, were the two 'tops' at
> about the same S-Meter reading?? NOTE Tops were within 1/2 S unit or so
>
> .
>
> I can see that 'background' noise can be different on different sidebands. This is usually a result of differences in

> bandwidth of the two filters, and any 'pre-filters' Per my previous, you say that both filters are showing correct (~
> 2.5 kHz) bandwidths. Extreme excursions of the CAR OSC (C130) can vary the 'noise power' in each filter by moving it to
> the edge of the IF transformer tuning. Think of the IF transformer passband as a filter. Changing C130 'moves' the two
> crystal filter passbands around that IF passband. IF a passband is moved too far, the noise could decrease in one
> sideband by being outside the transformer passband, or at least down on it's skirt.
>
> Can you set C130 for 9.000 MHz using either a counter or by listening on a general coverage receiver?? It really
> shouldn't be very far (+/- 100-200 Hz?) from that. NOTE C-130 set
> at the highest, to 899.8985
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> k7mks@... wrote:
> >
> >
> >
> > I'd appreciate a quick email indicating,. from those who have a TR-4C in good working condition, if your S-meter
> > correctly "zeros" on both UPPER and LOWER sideband. This is with no signal input and the receiver "white noise" is
> > similar in sound in both UPPER and LOWER.
> > The reason for this request is that I have heard that the some TR-4C's have a tendency to have unequal S-meter
> > readings when zeroed
> > on one sideband.
> >

18955. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 03:05:12 UTC
From: Robert Logan
Topic: 1054 Message: 18955

I think I may have found something.

If C105 was open or showed 5 Meg resistance across it, would that stop the side tone going through the antivox cable back to V9? Looks like it in the schematic.

The covering of C105 has pulled back, exposing the plates and laying them bare against the circuit board. Never have seen that before. I can send you a photo of it tomorrow.

All other ceramics of .01 value show resistance across in the 40K-50K range. Bob

Sent from my iPhone

18956. Re: [DrakeRadio] TR-4C S meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 03:48:16 UTC
From: k7mks@...
Topic: 18935 Message: 18956

Thanks again Garey. I plan to order a crystal and will heed your comments about the relay contacts. Other than this minor glitch the radio is a real gem with great audio from a "444".

73 joe k7mks
----- Original Message -----

From: "Garey Barrell" <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, February 25, 2014 6:46:10 PM
Subject: Re: [DrakeRadio] TR-4C S meter zero

OK.... That's slightly low, obviously, so maybe you can't get close enough to one filter. With it turned all the way
up, you probably still have 'hissy' audio on that sideband.

Just to be careful, check the relay K2 contacts. Back corner near the CAR OSC. The relay should be de-energized in
SSB, and the NC closed contacts short out a 68 pF cap in series with the crystal to ground. If that ground (contacts)
isn't good I would expect the frequency to be higher, not lower.

You may just be fighting crystal aging.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k7mks@... wrote:
>
>
> Garey: Thanks for a valuable tutorial on filters etc. I'm beginning to feel that the 9.000KHz crystal has moved
> slightly and may be repl aced. My other TR4-CW/RIT has a 9 MHz filter that is right spot on Will keep you posted
> Joe k7mks
>
> --
> *From: *"Garey Barrell" <k4oah@...>
> *To: *DrakeRadio@yahoogroups.com
> *Sent: *Tuesday, February 25, 2014 11:29:04 AM
> *Subject: *Re: [DrakeRadio] TR-4C S meter zero
>
> I'm still having trouble deciphering what you are talking about.

>
>
> When you did the filter bandwidth check by listening to the Calibrator as I described earlier, were the two 'tops' at
> about the same S-Meter reading?? NOTE Tops were within 1/2 S unit or so
>
> .
>
> I can see that 'background' noise can be different on different sidebands. This is usually a result of differences in
> bandwidth of the two filters, and any 'pre-filters' Per my previous, you say that both filters are showing correct (~
> 2.5 kHz) bandwidths. Extreme excursions of the CAR OSC (C130) can vary the 'noise power' in each filter by moving it to
> the edge of the IF transformer tuning. Think of the IF transformer passband as a filter. Changing C130 'moves' the two
> crystal filter passbands around that IF passband. IF a passband is moved too far, the noise could decrease in one
> sideband by being outside the transformer passband, or at least down on it's skirt.
>
> Can you set C130 for 9.000 MHz using either a counter or by listening on a general coverage receiver?? It really
> shouldn't be very far (+/- 100-200 Hz?) from that. NOTE C-130 set
> at the highest, to 899.8985
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> k7mks@... wrote:
> >
> >
> >
> > I'd appreciate a quick email indicating,. from those who have a TR-4C in good working condition, if your S-meter
> > correctly "zeros" on both UPPER and LOWER sideband. This is with no signal input and the receiver "white noise" is
> > similar in sound in both UPPER and LOWER.
> > The reason for this request is that I have heard that the some TR-4C's have a tendency to have unequal S-meter
> > readings when zeroed
> > on one sideband.
> >

18957. T-4X Front Panel

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 03:52:53 UTC
From: Wolfgang (VK3WY)
Topic: 18957 Message: 18957

Hi Group,

I am looking for a Drake T-4X front panel, the unit has been badly vandalised, but I would like to restore it back to its former glory.

Cheers to Group

Wolf

18958. Re: [DrakeRadio] TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 04:06:42 UTC
From: VE3AX/7
Topic: 18930 Message: 18958

Geoff:

I am using stock Drake 7077 mics on my TR-5 and TR-7's with good results on all three. They are all hooked through SP-75's which I rarely turn on but if I need a bit of a boost I'll crack the SP-75's open VERY slightly. Mic wiring would appear to be all the same but will admit I have not checked the schematics.

Nice little rig – kinda quirky relative to it's TR-7 big brother – that reversed tuning seems to be the hardest part to get used to. Interesting they added a speaker on/off switch to get around the TR-7's inability to crank down to zero audio.

73,

Peter
VE3AX/7

From: geoffrey mendelson
Sent: Tuesday, February 25, 2014 6:03 PM
To: DrakeRadio@...m
Subject: Re: [DrakeRadio] TR-5 Resoration

On 2/26/2014 12:03 AM, Dieter Horst wrote:

The TR5 is not nearly as good as the TR7 but it is a nice radio that I would not want to miss on my bench. And you have to get used to the PTO behaviour. You have to turn in the other direction... ;-)

Can you use a microphone wired for a TR5 on a TR-7?

Thanks in advance,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18959. Re: [DrakeRadio] TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 04:28:40 UTC
From: geoffrey mendelson
Topic: 18930 Message: 18959

On 2/26/2014 6:06 AM, VE3AX/7 wrote:
>
> Geoff:
> I am using stock Drake 7077 mics on my TR-5 and TR-7's with good
> results on all three. They are all hooked through SP-75's which I
> rarely turn on but if I need a bit of a boost I'll crack the SP-75's
> open VERY slightly. Mic wiring would appear to be all the same but
> will admit I have not checked the schematics.
> Nice little rig – kinda quirky relative to it's TR-7 big brother –
> that reversed tuning seems to be the hardest part to get used to.
> Interesting they added a speaker on/off switch to get around the
> TR-7's inability to crank down to zero audio.
>

Thanks, I am hoping that I will be getting a TR7 in the near future.
Wish me luck. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

18960. Re: [DrakeRadio] R4B PTO freq way off

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 05:05:30 UTC
From: Richard Knoppow
Topic: 18871 Message: 18960

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, February 25, 2014 1:12 PM
Subject: Re: [DrakeRadio] R4B PTO freq way off

> Rod -
>
> Richard suggested moving the dial by slipping it on the
> hub. If you have to go very far, there is a much easier
> way.
> Looking down on top of the gearbox, you'll see that the
> leftmost nylon gear shaft is pulled toward the hub by a
> spring.
> You may also notice that the hole in the front wall of the
> gearbox for this shaft is oblong! If you pull out (away
> from
> the hub) on that shaft, the nylon gear is disengaged and
> you can spin the dial wherever you want it!
>
> Here, you just need your own hammer. We tell you where to
> hit it at no charge!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
I was being very stupid this morning. I meant turning
the _dial_ to get it into alignment. Its possible to align
the stop by lifting the small gear but I was thinking of
something else. I know about this problem because I've had
it and had to figure out what was wrong. If the stop pin is
sticky it can allow the tuning gear to over travel. When
everything is set right the VFO is very smooth both
mechanically and electrically.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18961. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 05:12:31 UTC
From: Richard Knoppow
Topic: 1054 Message: 18961

----- Original Message -----
From: "Robert Logan" <bob.logan47@...>
To: "Drake Group" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, February 25, 2014 7:05 PM
Subject: [DrakeRadio] T-4XC problem

>I think I may have found something.
>
> If C105 was open or showed 5 Meg resistance across it,
> would that stop the side tone going through the antivox
> cable back to V9? Looks like it in the schematic.
>
> The covering of C105 has pulled back, exposing the plates
> and laying them bare against the circuit board. Never
> have seen that before. I can send you a photo of it
> tomorrow.
>
> All other ceramics of .01 value show resistance across in
> the 40K-50K range. Bob
>
> Sent from my iPhone
>
How are you measuring this resistance? Generally,
ceramic caps have very low leakage, i.e. very high parallel
resistance. They must be measured out of circuit. Cracked
casing on ceramics is a problem and comes from stressing the
leads. There may be damage to the insides. Ceramic caps in
general have very long lives but the life also depends on
the type of dielectric. Hi-K types do age somewhat while
low-K C0G and NP0 types do not or age very slowly. Any type
will long outlast paper caps.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18962. Re: [DrakeRadio] TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 07:48:04 UTC
From: Dieter Horst
Topic: 18930 Message: 18962

Same story here.... never checked the schematics but the 7077 works
nicely on the TR7 and the TR5. Geoff, are you aware of any difference?

Regarding the speaker switch they followed the R7 scheme. A plugged in
headphones will not mute the speaker. That is what the switch is for.

73s, Dieter DL5RDO

Am 26.02.2014 05:06, schrieb VE3AX/7:
>
> Geoff:
> I am using stock Drake 7077 mics on my TR-5 and TR-7's with good
> results on all three. They are all hooked through SP-75's which I
> rarely turn on but if I need a bit of a boost I'll crack the SP-75's
> open VERY slightly. Mic wiring would appear to be all the same but
> will admit I have not checked the schematics.
> Nice little rig – kinda quirky relative to it's TR-7 big brother –
> that reversed tuning seems to be the hardest part to get used to.
> Interesting they added a speaker on/off switch to get around the
> TR-7's inability to crank down to zero audio.
> 73,
> Peter
> VE3AX/7
> *From:* geoffrey mendelson <mailto:geoffreymendelson@...>
> *Sent:* Tuesday, February 25, 2014 6:03 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] TR-5 Resoration
>
> On 2/26/2014 12:03 AM, Dieter Horst wrote:
>>
>>
>> The TR5 is not nearly as good as the TR7 but it is a nice radio that
>> I would not want to miss on my bench. And you have to get used to the
>> PTO behaviour. You have to turn in the other direction... ;-)
>>
>
> Can you use a microphone wired for a TR5 on a TR-7?
>
> Thanks in advance,
>
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.

>

18963. Filter Options for R4C assistance please

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 09:44:31 UTC
From: <chrispickett@...>
Topic: 18963 Message: 18963

Hi Chaps, just got my4 Line back up and running after some issues with the AC4, now fully rebuilt, and I would finally like to get round to installing the filters I have had kicking around for the R4c for a while.

The units I have are as follows:-
INRAD GUF-1 Filter
I also have a pair of filters from Rob Sherwood CF-2K/8LSB and a CF-2K/8USB.
I have no fitting instructions for any of them and wonder if anyone has done these mods that could possibly mail me off list with the info I require.
Any help would be gratefully received as I am sure these will enhance the performance of the receiver by some considerable margin.

On another note, are there any good modifications known to improve the transmit audio of the Drake T4XC. I personally like the sharp narrow 'old school' audio but have a Turner Ceramic Fist mic and also a Hi Z Heil Gold-line but everyone moans about my highly 'nasal audio' - again ideas or suggestions are most welcome.

73
Chris
M5LRO

18964. RE: Filter Options for R4C assistance please

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 11:41:03 UTC
From: <w5rkl@...>
Topic: 18963 Message: 18964

Chris,

I do not have experience with the Sherwood CF-2K/8LSB/USB filters. I'm not sure but I believe the USB and LSB Sherwood filters you speak of are designed to be used on the Sherwood's filter switch PC board that mounts on the left side of the receiver, just left of the PRESELECTOR tuning assembly. The filters are switch selected by a switch assembly that replaces the AGC switch on the lower right of the receiver's front panel.

I have installed the GUF-1 filter in my R4C which took about 30 minutes to complete.

The INRAD GUF-1 filter is smaller than the Drake factory filter. INRAD provided a mounting drilling template with the GUF-1 filter.

The original filter is located on the top of the chassis. The filter is identified in the R4C manual on page 5-6, Figure 5-1, as the "8Khz B.W. first IF xtal filter".

You will need to drill 2 new holes in the top of the chassis, that's what the drilling template that came with the GUF-1 filter is for. You will be able to reuse one set of holes but you will have to drill the other set of holes.

Drilling the holes is self explanatory, simply remove the old filter, move the filter wiring so the wires will not get damaged during drilling, tape the template onto the top of the chassis, drill the 2 additional holes, clean up any burrs, mount and connect the new GUF-1 filter, and you're done. Check for and remove any metal shavings that may have gotten lodged onto the circuit boards or between tube pins before applying power.

You should check the receiver's alignment and make any necessary adjustments. That's all there is to installing the GUF-1 filter in the R4C receiver.

73
Mike W5RKL

18965. RE: Filter Options for R4C assistance please

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 12:14:36 UTC
From: <w5rkl@...>
Topic: 18963 Message: 18965

"Everyone moans about my highly nasal audio"

Who is "everyone"? I doubt "everyone" is every station you talk to, most likely only a few stations.

If your transmit audio is easily understood, is not causing splatter because the MIC gain is set too high, sounds muffled because of microphone impedance mismatch, or is not distorted, then there's absolutely no reason you should make any modifications to the T4XC speech amplifier just to suite a few stations.

I use a Turner desk microphone with my T4XB and a non-amplified D-104 with my T4XC. None of my Drake Transmitter's speech amplifier have been modified. If someone doesn't like how my audio sounds, oh well. I suspect you will get audio reports from many different people, some will say you sound fine, while others will say you need to rip out the speech amp, redesign it, just so you sound just like them! You will not please everyone and modifying the transmitter's speech amp to suit "everyone" is just silly.

73
Mike W5RKL

18966. Re: [DrakeRadio] TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 12:49:32 UTC
From: <gbeat5@...>
Topic: 18930 Message: 18966

Switchcraft manufactures at least 39 different "jack" schematics.
http://www.switchcraft.com/Documents/Jack_Schematics.pdf
http://www.switchcraft.com/Documents/Jack_Schematics.pdf

IF the Drake headphone jack is 2-conductor (Tip, Ring), then IX (J1-1B) with an Isolated switching "break" circuit
would be desired schematic (jack version) to mute speaker line when a headphone is inserted.
Switchcraft 1/4" 2-conductor jacks
http://www.switchcraft.com/productsummary.aspx?Parent=67
http://www.switchcraft.com/productsummary.aspx?Parent=67

w9gb

18967. Re: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 13:04:44 UTC
From: Woody
Topic: 18930 Message: 18967

Hi Guys, I have both 5 & 7 lines and to be honest about it I like the 5 better than the 7. Mine is more stable, where ever you set it is where it stays, where the 7 will move around a bit, so I use the RV75 most of the time. As for the Mic plug, the 7 & 5 both use pin's 1 or 4, they are connected together. 4 being used for the D104 type mic's.
Take Care
Woody "KO4BG"

--

*Of **all **the things I've L**ost, I miss my Mind the Most~~~*

18968. Re: [DrakeRadio] TR-5 deaf on occasion

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 13:11:44 UTC
From: Chgypsy@...
Topic: 18968 Message: 18968

In a message dated 2/25/2014 8:59:41 P.M. Eastern Standard Time,
geoffreymendelson@... writes:

Mine occasionally is deaf when I turn it on. A few seconds of CW carrier
on each band cleans it up.
73,
Dead when turned on.....
I found that to be the PS75 power supply after a long time of no use, in
particular after cold storage.
Apparently took x long to get the caps back to full operation.
Carl wd8nhk

18969. Re: [DrakeRadio] TR-5 / TR7 mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 13:12:41 UTC
From: Chgypsy@...
Topic: 18969 Message: 18969

geoffreymendelson@... writes:

Can you use a microphone wired for a TR5 on a TR-7?
YES, Carl wd8nhk

18970. Re: [DrakeRadio] L4B Relay Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 14:17:24 UTC
From: Bill Gaines
Topic: 18859 Message: 18970

Thanks to everyone for the great suggestions. I finally settled on Gary’s response because in my case
it required getting a good friend involved because he has the tools and workspace I would want
to involve. His help was invaluable and Gary’s suggestion of the tubing and where to get it was
accurate too. I have now manufactured several of these and they work great.

AD8P

From: Garey Barrell
Sent: Sunday, February 23, 2014 5:35 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B Relay Connector

Or you can just purchase a length of 3/32 brass thin wall tubing from your local hobby shop. Hobby Lobby and most of
the 'craft' stores have about 18" lengths for a buck or two...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bill Gaines wrote:
>
>
> It just so happens I have a CRT monitor in the garage. Before I tear it apart, will It be possible to get two of these
> item from one monitor or will I need to salvage another monitor somewhere?
> Bill
> Thank you by the way.
> *From:* Jim Shorney <mailto:jshorney@...>
> *Sent:* Sunday, February 23, 2014 5:02 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] L4B Relay Connector
>
>
> Quite by accident I found out that the four-pin inline flyback connector on
> many older CRT monitor boards has two pins that are almost exactly the correct
> spacing. Of course, you need to have easy access to scrap monitor boards to
> find one. I got lucky, as they aren't as easy to find these days as they used
> to be.
>

> 73
>
> -Jim
> NU0C
>
> On Sun, 23 Feb 2014 16:21:11 -0500, Bill Gaines wrote:
>
> >If that is the case, what are most doing to cope with the problem?
> >
> >Thanks
> >Bill AD8P
> >
> >From: vacuuminded2@...
> >Sent: Sunday, February 23, 2014 4:19 PM
> >To: DrakeRadio@yahoogroups.com
> >Subject: Re: [DrakeRadio] L4B Relay Connector
> >
> >
> >
> >If you find a source for those 2 pin connectors, please let us all know. So far nobody (myself included) has been
> able to nail down anything to secure NOS stock or have them custom made.
> >
> >Chris
> >
> >Sent from my outdated iPhone wireless thingy
> >
> >On Feb 23, 2014, at 3:09 PM, "Bill Gaines" <ad8p@...> wrote:
> >
> >
> >
> > I need a couple of the two pronged relay connectors; one for the AC4 and one for the L4B. I also need 4 of the
> rubber covered screws used on the MS4 that hold the AC4 inside. I know I could anything but at this point I have spent
> good money having the C-Line refurbished and have rebuilt the AC4 and power supply for the L4B I might as well make
> everything right. I have found the rubber covered screws at one vendor but am just trying to get everything from one
> source. Just let me know off line. No need to clog the reflector with this info.
> >
> > I am anxiously looking forward to getting this stuff on the air.
> >
> > Bill AD8P
> >
>

18971. Re: [DrakeRadio] T-4X Front Panel

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 14:30:42 UTC
From: Steve Wedge
Topic: 18957 Message: 18971

Wolf, I've got a T-4XB panel with an extra hole in the front - where the mic socket goes in the T-4x. Let me know.

Will take pics later.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Feb 25, 2014, at 10:52 PM, "Wolfgang \(VK3WY\)" <vk3wy@...m.au> wrote:
>
> Hi Group,
>
> I am looking for a Drake T-4X front panel, the unit has been badly vandalised, but I would like to restore it back to its former glory.
>
> Cheers to Group
>
> Wolf
>

18972. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 15:28:28 UTC
From: Robert Logan
Topic: 1054 Message: 18972

Richard, I just pit DMM leads across it. It was still in the circuit. Wasn't any organized, knowledgeable test. Bob

Sent from my iPhone

On Feb 25, 2014, at 11:12 PM, "Richard Knoppow" <1oldlens1@...> wrote:

----- Original Message -----
From: "Robert Logan" <bob.logan47@...>
To: "Drake Group" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, February 25, 2014 7:05 PM
Subject: [DrakeRadio] T-4XC problem

>I think I may have found something.
>
> If C105 was open or showed 5 Meg resistance across it,
> would that stop the side tone going through the antivox
> cable back to V9? Looks like it in the schematic.
>
> The covering of C105 has pulled back, exposing the plates
> and laying them bare against the circuit board. Never
> have seen that before. I can send you a photo of it
> tomorrow.
>
> All other ceramics of .01 value show resistance across in
> the 40K-50K range. Bob
>
> Sent from my iPhone
>
How are you measuring this resistance? Generally,
ceramic caps have very low leakage, i.e. very high parallel
resistance. They must be measured out of circuit. Cracked
casing on ceramics is a problem and comes from stressing the
leads. There may be damage to the insides. Ceramic caps in
general have very long lives but the life also depends on
the type of dielectric. Hi-K types do age somewhat while
low-K C0G and NP0 types do not or age very slowly. Any type
will long outlast paper caps.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

18973. RE: Filter Options for R4C assistance please

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 12:59:54 UTC
From: <baysideanh@...>
Topic: 18963 Message: 18973

Chris I have tried a number of different mics on my T4X-C which I have owned and used for over 30 years and have found the Shure 444 to give the best response. It is in my opinion that I would have to say that it is tailored for this transmitter.
73 Bruce VE1ANH

18974. RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 16:37:31 UTC
From: <dcoffman@...>
Topic: 18933 Message: 18974

Garey,

When I place my O'scope probe on the hot side of the AF gain control, I do not appear to get an incoming signal. The new amp board modification requires the removal of Q11 output transistor and the removal of the driver Q10. Then new audio board input is connected to the wiper of the AF gain control via RG-174 coax, shield to the other shields on the AF gain pot and a wire added from this terminal on the AF gain to a ground lug just behind it. The amp board's only ground is the braid of the coax. I tore it all back down to ensure that I did not have a short in the coax feeding the amp board or a short in the cable feeding the audio to the AF Gain pot; in which I did not. B+ is picked up off the audio board on the pin that connects the blue wire to the audio xfmr. The amp board uses an LM383 transistor; Pin 5 has 12VDC, Pin 4 has 6VDC, 3 ground, 2 and 1 have less than a half volt. The output of the amp board goes to the phone jack lug that has the bare wire with a shrink tube coming form the secondary of the audio xfmr. I do not have a signal at either the phone jack or the speaker jack. Again, I cannot detect a signal coming into the hot side of the AF Gain Pot. I see signal on the secondary of T10 on the OScope. I'm not sure where to look for audio signal prior to the AF gain pot.

73,

Doug - N9XTF

18975. RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 16:37:53 UTC
From: <dcoffman@...>
Topic: 18933 Message: 18975

[Body unavailable in the source archive]

18976. RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 21:01:52 UTC
From: <w9ac@...>
Topic: 18933 Message: 18976

Doug,

Usual divide and conquer techniques apply. Since you've validated wiring at this point, check for correct voltages (all of them) coming off the new Sherwood PS board. Since you cannot see or detect audio on the high side of the AF control, that points to the new PS.

In addition to the scope check, you may also want to try tapping audio from the R-4C's AF control with a homebrew signal tracer. For quick checks, I often use an old RadioShack pocket amp with a 9V battery but almost any cheap amp can be made to work this way. My amp was designed with a 5K pot right at the input with no coupling, but I modified it with a 0.22 uF input coupling cap and a 100K series input resistor. Battery operation is nice since there's no opportunity for ground buzz/hum to seep in. Except in Hi-Z cases (e.g., right after a diode detector) this arrangement blocks all DC and doesn't load down the circuit as it's just bridging the source.

Paul, W9AC

18977. RE: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 21:16:06 UTC
From: Doug Coffman
Topic: 18933 Message: 18977

Paul,

The first thing I did was to verify the voltages. I have +12VDC +10VDC +150VDC and -70VDC at the power supply board. I also double checked that I had +10 VDC on the first wafer of the mode switch. I carefully labeled all wires as I pulled them off the old power supply board. I have checked and rechecked but my fear is that I am missing something simple.

I appears that the receiver is working as expected, IE I can tune to 40M with a short wire attached, tune through the band and watch the S meter deflect as normal receive operation. I just can’t find the darn audio.

I’ll do some more poking around, thanks for all the info!

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w9ac@...
Sent: Wednesday, February 26, 2014 4:02 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Doug,

Usual divide and conquer techniques apply. Since you've validated wiring at this point, check for correct voltages (all of them) coming off the new Sherwood PS board. Since you cannot see or detect audio on the high side of the AF control, that points to the new PS.

In addition to the scope check, you may also want to try tapping audio from the R-4C's AF control with a homebrew signal tracer. For quick checks, I often use an old RadioShack pocket amp with a 9V battery but almost any cheap amp can be made to work this way. My amp was designed with a 5K pot right at the input with no coupling, but I modified it with a 0.22 uF input coupling cap and a 100K series input resistor. Battery operation is nice since there's no opportunity for ground buzz/hum to seep in. Except in Hi-Z cases (e.g., right after a diode detector)&nbs p;this arrangement blocks all DC and doesn't load down the circuit as it's just bridging the source.

Paul, W9AC

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18978. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 21:23:17 UTC
From: Garey Barrell
Topic: 18933 Message: 18978

Doug -

OK, that narrows it down pretty well. That is the OUTPUT of the detector section. The secondary of T10 is the INPUT of
the detector circuit.

There was a shielded wire coming from the front side of the first wafer of the MODE switch that 'used to' go to the TOP
of the AF GAIN pot. Is it still connected?? Then there should be a wire (shielded) from the CENTER terminal of the AF
GAIN pot to the INPUT terminal of the Audio Amplifier.

My next guess is that the TOP of the AF GAIN control is grounded. Either through a short in that shielded wire, or
perhaps connections reversed?? If you disconnect the wire from the CENTER terminal of the AF GAIN control to the input
of the AF Amplifier and touch this wire with your finger you should get a good hum or buzz.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
> Garey,
>
>
> When I place my O'scope probe on the hot side of the AF gain control, I do not appear to get an incoming signal. The
> new amp board modification requires the removal of Q11 output transistor and the removal of the driver Q10. Then new
> audio board input is connected to the wiper of the AF gain control via RG-174 coax, shield to the other shields on the
> AF gain pot and a wire added from this terminal on the AF gain to a ground lug just behind it. The amp board's only
> ground is the braid of the coax. I tore it all back down to ensure that I did not have a short in the coax feeding
> the amp board or a short in the cable feeding the audio to the AF Gain pot; in which I did not. B+ is picked up off
> the audio board on the pin that connects the blue wire to the audio xfmr. The amp board uses an LM383 transistor; Pin

> 5 has 12VDC, Pin 4 has 6VDC, 3 ground, 2 and 1 have less than a half volt. The output of the amp board goes to the
> phone jack lug that has the bare wire with a shrink tube coming form the secondary of the audio xfmr. I do not have a
> signal at either the phone jack or the speaker jack. Again, I cannot detect a signal coming into the hot side of the
> AF Gain Pot. I see signal on the secondary of T10 on the OScope. I'm not sure where to look for audio signal prior
> to the AF gain pot.
>
>
>

18979. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:35:44 UTC
From: <dcoffman@...>
Topic: 18933 Message: 18979

Garey et. all,

I OWE EVERYONE ON THIS LIST A HUGE APOLOGY FOR TAKING UP IMPORTANT BANDWIDTH BECAUSE I AM SIMPLY A DERELECT!!!

I was reading your response while I was waiting to pick my son up from track practice. I went through your comments about 10 times and I mentally went through my wiring changes about 10 times. It occurred to me that the receiver looked like the AF gain pot had been replaced because the shielded cables going to the pot had been unbundled and were not tucked into wire loom like my other R-4C. So I rushed home and looked at the working R-4C that's turned upside down sitting next to the one that isn't working and realized that I had been chasing the wrong cable, the wiper and hot side cables were reversed from the previous golden screwdriver. I only removed the wiper connection and left the shield connected. This coupled with the picture I took verified this.

Now the stupid part is is that I set a "good" receiver next to the bad one so I could trace wires, check common voltages, signal inputs etc. I have no excuse for not comparing the AF gain pots, one is a blue and one is a red so its very obvious. If you had not said to check the pot for wrong wiring I would have taken it to Joe's house and he would have picked it up in two seconds and I would have totally wasted his time!

Again, I absolutely apologize to the list and open it up for useful traffic!

Doug - N9XTF

18980. T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:35:59 UTC
From: Robert Logan
Topic: 606 Message: 18980

Maybe this is source of the culprit. In doing resistance chart checks on all the tubes after all the other testing and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B (VOX Relay Control) is at 27 ohms instead of 500K. It's almost a dead short to ground. All the controls noted under the resistance chart were set properly.

That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay control has little influence on the amount of delay. Also would explain why CW spot won't stay keyed. I use PTT on SSB and AM so never noticed whether it would drop out.

It doesn't explain why, in Tune, the signal is audible in a separate RX and can be peaked but there is no power output with any position on Gain except in the RX. But then transmit and full output shows on the W4 and receiver's S meter.

I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda but not entirely satisfactory.

What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.

Bob

Sent from my iPhone

18981. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:39:37 UTC
From: Robert Logan
Topic: 18933 Message: 18981

Doug, finding stuff, whether simple or complex, and learning from people are what this wonderful list is all about. Congrats on resolving the issue. Bob, NZ5A

Sent from my iPhone

On Feb 26, 2014, at 4:35 PM, <dcoffman@pdswireless.com> wrote:

Garey et. all,

I OWE EVERYONE ON THIS LIST A HUGE APOLOGY FOR TAKING UP IMPORTANT BANDWIDTH BECAUSE I AM SIMPLY A DERELECT!!!

I was reading your response while I was waiting to pick my son up from track practice. I went through your comments about 10 times and I mentally went through my wiring changes about 10 times. It occurred to me that the receiver looked like the AF gain pot had been replaced because the shielded cables going to the pot had been unbundled and were not tucked into wire loom like my other R-4C. So I rushed home and looked at the working R-4C that's turned upside down sitting next to the one that isn't working and realized that I had been chasing the wrong cable, the wiper and hot side cables were reversed from the previous golden screwdriver. I only removed the wiper connection and left the shield connected. This coupled with the picture I took verified this.

Now the stupid part is is that I set a "good" receiver next to the bad one so I could trace wires, check common voltages, signal inputs etc. I have no excuse for not comparing the AF gain pots, one is a blue and one is a red so its very obvious. If you had not said to check the pot for wrong wiring I would have taken it to Joe's house and he would have picked it up in two seconds and I would have totally wasted his time!

Again, I absolutely apologize to the list and open it up for useful traffic!

Doug - N9XTF

18982. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:41:10 UTC
From: Garey Barrell
Topic: 18933 Message: 18982

Doug -

I'm just glad that "I" have never done something that stupid!!! ;-)

(We've all been there, done that!)

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
> Garey et. all,
>
>
> I OWE EVERYONE ON THIS LIST A HUGE APOLOGY FOR TAKING UP IMPORTANT BANDWIDTH BECAUSE I AM SIMPLY A DERELECT!!!
>
>

18983. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:46:22 UTC
From: Garey Barrell
Topic: 606 Message: 18983

Pull V10 and see what happens to the voltages on V9.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
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>
> That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay control has little influence on the amount of delay. Also would explain why CW spot won't stay keyed. I use PTT on SSB and AM so never noticed whether it would drop out.
>
> It doesn't explain why, in Tune, the signal is audible in a separate RX and can be peaked but there is no power output with any position on Gain except in the RX. But then transmit and full output shows on the W4 and receiver's S meter.
>
> I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda but not entirely satisfactory.
>
> What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
>
> Bob
>
>
>
> Sent from my iPhone
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> Yahoo Groups Links
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> No virus found in this message.

> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7126 - Release Date: 02/26/14
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18984. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:53:17 UTC
From: Garey Barrell
Topic: 606 Message: 18984

Bob -

I can't see anything that could cause that other than a shorted C92 (unlikely), short between Pins 7 and 8 wiring, or a
shorted tube (most likely).

I can't follow it all the way yet, as I have to go out, but will look at it later if you don't find the problem first.!!

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

Robert Logan wrote:
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>
> I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda but not entirely satisfactory.
>
> What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
>
> Bob
>
>

18985. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 22:55:01 UTC
From: Garey Barrell
Topic: 606 Message: 18985

I gotta go, but if that resistance is really 27 ohms, V10B should be conducting and the relay pulled in all the time.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
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> That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay control has little influence on the amount of delay. Also would explain why CW spot won't stay keyed. I use PTT on SSB and AM so never noticed whether it would drop out.
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>
> I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda but not entirely satisfactory.
>
> What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
>
> Bob
>
>

18986. Re: [DrakeRadio] T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-26 23:14:40 UTC
From: Robert Logan
Topic: 606 Message: 18986

Will do.

Sent from my iPhone

On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@...> wrote:

Pull V10 and see what happens to the voltages on V9.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>
> Bob
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> Sent from my iPhone
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> Yahoo Groups Links
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> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7126 - Release Date: 02/26/14
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18987. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 01:20:54 UTC
From: Robert Logan
Topic: 606 Message: 18987

Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.

I can see why V10 didn't conduct all the time. With no load or input, there was just enough residual or stray resistance to keep it 'open'. With it, the tube went to ground. Without it, the tube went back open.

I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show any shorts but the tube tester isn't real world, of course, and not always truly indicative of a situation.

I don't have another 6EV7 but will order one just case. In one version of the manual---i don't know if earlier or later than the version on your CD---there was a suggestion to use a 6EQ7. The suggestion might have been in service bulletin or something. Any recommendations on that idea?

One of the fellows here on the list first suggested it might be a gassy 6EV7. Sounds pretty good now although I still need to check the components in the 6EV7 circuits as a possible cause.

Any thoughts? Bob

Sent from my iPhone

On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@...> wrote:

Pull V10 and see what happens to the voltages on V9.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Maybe this is source of the culprit. In doing resistance chart checks on all the tubes after all the other testing and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B (VOX Relay Control) is at 27 ohms instead of 500K. It's almost a dead short to ground. All the controls noted under the resistance chart were set properly.
>
> That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay control has little influence on the amount of delay. Also would explain why CW spot won't stay keyed. I use PTT on SSB and AM so never noticed whether it would drop out.
>
> It doesn't explain why, in Tune, the signal is audible in a separate RX and can be peaked but there is no power output with any position on Gain except in the RX. But then transmit and full output shows on the W4 and receiver's S meter.

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> I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda but not entirely satisfactory.
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>
> Bob
>
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> Sent from my iPhone
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> Yahoo Groups Links
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> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7126 - Release Date: 02/26/14
>
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18988. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 01:41:19 UTC
From: Steve Wedge
Topic: 18933 Message: 18988

Doug -

Don't feel bad. This is how I find a lot of problems. Tube devices have lots of interconnecting wires going to small boards. Most of my training in electronics was with PCB's, though we used cables quite a bit, back in the day. A good technician remembers past failures and applies them to future problems.

Your odyssey helps the rest of us to avoid the same error. I used to read old tech logs back in the 1970s to gain insight as to most likely failure modes. This still works today.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: dcoffman@...
Sent: Wednesday, February 26, 2014 5:35 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Garey et. all,

I OWE EVERYONE ON THIS LIST A HUGE APOLOGY FOR TAKING UP IMPORTANT BANDWIDTH BECAUSE I AM SIMPLY A DERELECT!!!

I was reading your response while I was waiting to pick my son up from track practice. I went through your comments about 10 times and I mentally went through my wiring changes about 10 times. It occurred to me that the receiver looked like the AF gain pot had been replaced because the shielded cables going to the pot had been unbundled and were not tucked into wire loom like my other R-4C. So I rushed home and looked at the working R-4C that's turned upside down sitting next to the one that isn't working and realized that I had been chasing the wrong cable, the wiper and hot side cables were reversed from the previous golden screwdriver. I only removed the wiper connection and left the shield connected. This coupled with the picture I took verified this.

Now the stupid part is is that I set a "good" receiver next to the bad one so I could trace wires, check common voltages, signal inputs etc. I have no excuse for not comparing the AF gain pots, one is a blue and one is a red so its very obvious. If you had not said to check the pot for wrong wiring I would have taken it to Joe's house and he would have picked it up in two seconds and I would have totally wasted his time!

Again, I absolutely apologize to the list and open it up for useful traffic!

Doug - N9XTF

18989. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:13:00 UTC
From: Michael. J. Trussell
Topic: 18933 Message: 18989

When I replaced my power supply board on my R4C, I had to replace my audio amp also using the Sherwood audio amp because the new power supply board from Sherwood is not compatible with the stock Drake audio amp. They both work great.

On Feb 26, 2014, at 8:41 PM, "Steve Wedge" <w1es1982@...m> wrote:

> Doug -
>
> Don't feel bad. This is how I find a lot of problems. Tube devices have lots of interconnecting wires going to small boards. Most of my training in electronics was with PCB's, though we used cables quite a bit, back in the day. A good technician remembers past failures and applies them to future problems.
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> Your odyssey helps the rest of us to avoid the same error. I used to read old tech logs back in the 1970s to gain insight as to most likely failure modes. This still works today.
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> 73,
>
> Steve Wedge, W1ES/4
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> From: dcoffman@...
> Sent: Wednesday, February 26, 2014 5:35 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade
>
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>
>
> Again, I absolutely apologize to the list and open it up for useful traffic!
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>
>
> Doug - N9XTF
>
>

18990. Re: [DrakeRadio] RE: R-4C loss of audio output following Sherwood Power Supply and Audio board upgrade

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:15:30 UTC
From: <toptyp19@...>
Topic: 18933 Message: 18990

Hi Doug-
How many times have I asked: "Where's the salt?"
Welcome to the club, OM!
73 and GL, Joe-WA9LAE

18991. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:51:10 UTC
From: Garey Barrell
Topic: 606 Message: 18991

Cool! I don't see the path, but there is a lot of switching going on in there. What does Pin 7 show to ground with the
tube out??

6EV7 is pretty easy to find, and not expensive. The 6FQ7 however is an audio favorite and so considerably more
expensive. The FQ was only used because Drake couldn't get sufficient quantities of the EV for production. The EV was
originally used for TV Remote controls, the old 'clunk-clunk-clunk' type!! It wouldn't hurt to get an EV, having a
spare almost always obviates the need for one! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.
>
> I can see why V10 didn't conduct all the time. With no load or input, there was just enough residual or stray
> resistance to keep it 'open'. With it, the tube went to ground. Without it, the tube went back open.
>
> I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show any shorts but the tube tester
> isn't real world, of course, and not always truly indicative of a situation.
>
> I don't have another 6EV7 but will order one just case. In one version of the manual---i don't know if earlier or
> later than the version on your CD---there was a suggestion to use a 6EQ7. The suggestion might have been in service
> bulletin or something. Any recommendations on that idea?
>
> One of the fellows here on the list first suggested it might be a gassy 6EV7. Sounds pretty good now although I still
> need to check the components in the 6EV7 circuits as a possible cause.
>
> Any thoughts? Bob
>
> Sent from my iPhone

>
> On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Pull V10 and see what happens to the voltages on V9.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Robert Logan wrote:
> > Maybe this is source of the culprit. In doing resistance chart checks on all the tubes after all the other testing
> and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B (VOX Relay Control) is at 27 ohms
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> meter.
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> but not entirely satisfactory.
> >
> > What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
> >
> > Bob
> >
>

18992. New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:51:01 UTC
From: Whitebear1122
Topic: 18933 Message: 18992

Well after some 43 years I finally own a 4C station. I just bought a gorgeous TR-4CW-RIT and AC-4 power supply. It arrived today and I had the thrill of pulling this beauty out of the box and being blown away by the great condition. It hasn't been often that I've been wow'd by the condition of a radio. I'm listening to 20 meter cw and ssb right now on it. I need to print out the manual to read up on how to tune it so I'll try it out tomorrow night on 20m. I might look for an original TR-4CW-RIT manual as I've always enjoyed having an original manual with a radio. I store the manuals underneath the radios for quick access.

I heard there is a Saturday Drake net on 40m. I'll have to look into that!

I've been curious about the 500 Hz filter and RIT. Looks like the TR-4 will be nice to operate on CW. I could easily zero beat the other station, then use the RIT to slip up the band a bit to put the signal smack dab in the 500 Hz passband. Sweet!

A long time ago, some 43 years ago, I was in the Navy overseas and would look read QST from cover to cover, and I would spent a lot of time dwelling on the Amateur Electronic Supply advertisements showing Ray Grenier sitting at the helm of a fabulous Drake station. I sure dreamed about that station but I wasn't in the right place or right time. Guess 43 years later is the right time and right place :)

Did Drake ever have Drake QSL cards? I remember WRL did, Hammarlund did. Wonder if Drake ever did.

Finally Drake,
73, Scott WA9WFA

18993. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:56:38 UTC
From: Steve Wedge
Topic: 606 Message: 18993

True, that. I pounce on them whenever I see them at hamfests.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Feb 26, 2014, at 9:51 PM, Garey Barrell <k4oah@...> wrote:
>
> Cool! I don't see the path, but there is a lot of switching going on in there. What does Pin 7 show to ground with the
> tube out??
>
> 6EV7 is pretty easy to find, and not expensive. The 6FQ7 however is an audio favorite and so considerably more
> expensive. The FQ was only used because Drake couldn't get sufficient quantities of the EV for production. The EV was
> originally used for TV Remote controls, the old 'clunk-clunk-clunk' type!! It wouldn't hurt to get an EV, having a
> spare almost always obviates the need for one! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Robert Logan wrote:
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> > Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.
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> > I can see why V10 didn't conduct all the time. With no load or input, there was just enough residual or stray
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> > I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show any shorts but the tube tester
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> > I don't have another 6EV7 but will order one just case. In one version of the manual---i don't know if earlier or
> > later than the version on your CD---there was a suggestion to use a 6EQ7. The suggestion might have been in service
> > bulletin or something. Any recommendations on that idea?

> >
> > One of the fellows here on the list first suggested it might be a gassy 6EV7. Sounds pretty good now although I still
> > need to check the components in the 6EV7 circuits as a possible cause.
> >
> > Any thoughts? Bob
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> > On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@... <mailto:k4oah@mindspring.com>> wrote:
> >
> > Pull V10 and see what happens to the voltages on V9.
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> > 73, Garey - K4OAH
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> > > Maybe this is source of the culprit. In doing resistance chart checks on all the tubes after all the other testing
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> > > That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay
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> > meter.
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> > > I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda
> > but not entirely satisfactory.
> > >
> > > What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
> > >
> > > Bob
> > >

> >
>
>

18994. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 02:56:52 UTC
From: Don Cunningham
Topic: 18933 Message: 18994

Scott,
It's about time!!!! Now you'll learn what a lot of us already knew, it's all good in one way or another, and Drake has it's good points too?? Glad to see you on the group, there's a lot of collective knowledge of the old Drakes on here, and it's freely shared as on many of the old radio lists.

Welcome to DrakeRadio!! You will fit right in.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7128 - Release Date: 02/26/14

18995. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 03:48:08 UTC
From: Garey Barrell
Topic: 18933 Message: 18995

Scott -

I take it you are withdrawing your offer?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 wrote:
> Well after some 43 years I finally own a 4C station. I just bought a gorgeous TR-4CW-RIT and AC-4 power supply. It arrived today and I had the thrill of pulling this beauty out of the box and being blown away by the great condition. It hasn't been often that I've been wow'd by the condition of a radio. I'm listening to 20 meter cw and ssb right now on it. I need to print out the manual to read up on how to tune it so I'll try it out tomorrow night on 20m. I might look for an original TR-4CW-RIT manual as I've always enjoyed having an original manual with a radio. I store the manuals underneath the radios for quick access.
>
> I heard there is a Saturday Drake net on 40m. I'll have to look into that!
>
> I've been curious about the 500 Hz filter and RIT. Looks like the TR-4 will be nice to operate on CW. I could easily zero beat the other station, then use the RIT to slip up the band a bit to put the signal smack dab in the 500 Hz passband. Sweet!
>
> A long time ago, some 43 years ago, I was in the Navy overseas and would look read QST from cover to cover, and I would spent a lot of time dwelling on the Amateur Electronic Supply advertisements showing Ray Grenier sitting at the helm of a fabulous Drake station. I sure dreamed about that station but I wasn't in the right place or right time. Guess 43 years later is the right time and right place :)
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> Finally Drake,
> 73, Scott WA9WFA
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>
>

18996. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 06:26:46 UTC
From: VE3AX/7
Topic: 18933 Message: 18996

Scott:

Another grey box Cedar Rapids convert! Welcome aboard!

Some years ago Ray sent me a copy of the original ad pic at the helm of that Drake station on the Design Industries desk. As a VHF DX'er I drooled over the TC-2/TC-6 combo on the shelves above the B-line those many years ago. Talking with Ray on 2m one night some 30 years later during some enhanced tropo over the Great Lakes, the talk quickly turned to Drake and his famous ad. His pic turned up in the mail a week later!

I'll do what I can to get it scanned and posted to this group. It's what drove me back into Drake. Just beware – Miamisburg black boxes are contagious!

By the way, our gracious host here eagerly participates on threads that deviate from "strictly Drake" and you'll get used to the friendly banter you do not see elsewhere.

73

Peter
VE3AX/7

From: Whitebear1122
Sent: Wednesday, February 26, 2014 6:51 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] New Drake TR-4CW-RIT Owner

Well after some 43 years I finally own a 4C station. I just bought a gorgeous TR-4CW-RIT and AC-4 power supply. It arrived today and I had the thrill of pulling this beauty out of the box and being blown away by the great condition. It hasn't been often that I've been wow'd by the condition of a radio. I'm listening to 20 meter cw and ssb right now on it. I need to print out the manual to read up on how to tune it so I'll try it out tomorrow night on 20m. I might look for an original TR-4CW-RIT manual as I've always enjoyed having an original manual with a radio. I store the manuals underneath the radios for quick access.

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Did Drake ever have Drake QSL cards? I remember WRL did, Hammarlund did. Wonder if Drake ever did.

Finally Drake,
73, Scott WA9WFA

18997. Re: [DrakeRadio] TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 10:31:07 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 18997

Hi Gary (and everyone else!)

Wow what a great (active!) group and what a fast response to my question :)

Thanks Gary - all received - what a star :) - really appreciate it !

I guess I should have mentioned that the reason for the post title was that the radio is 'for repair' unit hence the title restoration :)

From the circuit and others postings it looks pretty reliable and the technology is pretty straightforward so hopefully not too many issues to resolve as long as its complete and nobody else has 'tried' to fix it. I specialise in repairing / resolving issues where other tech's (good and bad) have tried and failed :) . I pick the TR-5/PS-75 unit(s) up tomorrow, once I've cleared my bench of an FT-1000D with a particularly tricky ALC problem (not the usual swr/lpf/tuner unit diode problem) I will dive into the TR-5. I will post some initial findings and perhaps some photo's (can I do that?).

I think I might have the Drake bug now alongside the Hethkit/Ten Tec /Swan one, which might be problem - I've got my eye on (this time working) TR-7 with power supply, so lets see how that goes!!

Thanks again,
Chris
M1ABK

---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote:

Chris -

Yes, a rare bird! I have sent a schematic under separate cover, which is apparently even 'rarer' in the wild! :-) It
was large format, so was easily separated from other docs.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

18998. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 14:13:52 UTC
From: Lee Hiers
Topic: 18933 Message: 18998

On Wed, Feb 26, 2014 at 9:51 PM, Whitebear1122 <whitebear1122@...>wrote:

I've been curious about the 500 Hz filter and RIT. Looks like the TR-4 will
> be nice to operate on CW. I could easily zero beat the other station, then
> use the RIT to slip up the band a bit to put the signal smack dab in the
> 500 Hz passband. Sweet!

I've not operated a TR4Cw/RIT before, but if you do what I think you're saying you'll do, won't that put your signal off the other station's frequency?

If the TR4Cw/RIT is like every other transceiver I know about, you need to tune the other station to a pitch that matches the offset...and I think, but am not sure, that the Drakes use 1 kHz. You could then use the RIT to change the pitch slightly or chase the other guy if he's drifting, etc.

If you tune so the other guy's tone disappears - is 0 Hz - then you'll be off his frequency by the amount of the offset.

I think of "zero-beating" as tuning two signals so that the beat note between them disappears - say using Spot to tune a separate transmitter to a received signal. Tune for minimum "wawawaawaaawaaaa" between the two signals and that is zero beat.

Or am I off-base here?

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

18999. Ray Grenier, K9KHW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 18:01:54 UTC
From: VE3AX/7
Topic: 18933 Message: 18999

Morning all;

I am guessing a lot of us here were inspired (or at least envied) that old QST/AES ad with Ray sitting in front of his Drake line.

A Google search reveals Ray just retired within the last few weeks from AES after more than 50 years with them. He's already working again....with West Mountain Radio.

Here's the link;
http://fdlhams.org/assets/2014-feb_news.pdf

They goofed up his call on the right hand side of the page but got it right in the President's comments on the left.

Funny – I didn't remember his hair being white.....then I looked in a mirror.....right!

73

Peter
VE3AX/7

From: VE3AX/7
Sent: Wednesday, February 26, 2014 10:26 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Scott:

Another grey box Cedar Rapids convert! Welcome aboard!

Some years ago Ray sent me a copy of the original ad pic at the helm of that Drake station on the Design Industries desk. As a VHF DX'er I drooled over the TC-2/TC-6 combo on the shelves above the B-line those many years ago. Talking with Ray on 2m one night some 30 years later during some enhanced tropo over the Great Lakes, the talk quickly turned to Drake and his famous ad. His pic turned up in the mail a week later!

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Peter
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Sent: Wednesday, February 26, 2014 6:51 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] New Drake TR-4CW-RIT Owner

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I heard there is a Saturday Drake net on 40m. I'll have to look into that!

I've been curious about the 500 Hz filter and RIT. Looks like the TR-4 will be nice to operate on CW. I could easily zero beat the other station, then use the RIT to slip up the band a bit to put the signal smack dab in the 500 Hz passband. Sweet!

A long time ago, some 43 years ago, I was in the Navy overseas and would look read QST from cover to cover, and I would spent a lot of time dwelling on the Amateur Electronic Supply advertisements showing Ray Grenier sitting at the helm of a fabulous Drake station. I sure dreamed about that station but I wasn't in the right place or right time. Guess 43 years later is the right time and right place :)

Did Drake ever have Drake QSL cards? I remember WRL did, Hammarlund did. Wonder if Drake ever did.

Finally Drake,
73, Scott WA9WFA

19000. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 21:54:53 UTC
From: Robert Logan
Topic: 606 Message: 19000

Pin 7 of the 6EV7 without the tube itself shows -4.2 Volts.

Switch paths are nearly a complete mystery to me. My only guidance is a meter and sometimes s scope. But I don't know looking at a schematic whether you're looking at the front or back of a switch wafer. It's especially evident on radios from the 20s - 40s, assuming you can find a schematic at all. Symbology of components changed through the years, and some manufacturers didn't want others to copy their designs.

What does the voltage on Pin 7 tell you?

Bob

Sent from my iPhone

On Feb 26, 2014, at 8:51 PM, Garey Barrell <k4oah@mindspring.com> wrote:

Cool! I don't see the path, but there is a lot of switching going on in there. What does Pin 7 show to ground with the
tube out??

6EV7 is pretty easy to find, and not expensive. The 6FQ7 however is an audio favorite and so considerably more
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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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19001. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-27 22:10:27 UTC
From: Garey Barrell
Topic: 606 Message: 19001

Bob -

Tells me you have a bad tube..... I thought your first post said you had swapped the tube. That negative voltage is
plenty to cut off V10b, de-energizing the relay. Rectified sidetone from V10a is plenty to overcome that bias and cause
the tube to conduct, pulling in the relay. UNLESS the plate voltage is too low on V9!! :-)

Certainly an odd set of symptoms. By dragging down the Plate voltage for V9 it led me down a garden path! :-)
Interesting, because loss of the signals generated by V9a, with the other symptoms sure suggested loss of that tone.
Once again, the horses beat the zebras! :-) I still don't see how that occurs, it'll take some research.

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of wafers are shown as viewed from the front, a sort of 'x-ray' view. The biggest problem in tracing through them is
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19002. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 01:19:37 UTC
From: Robert Logan
Topic: 606 Message: 19002

Good

Sent from my iPhone

On Feb 27, 2014, at 4:10 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Tells me you have a bad tube..... I thought your first post said you had swapped the tube. That negative voltage is
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19003. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 01:25:24 UTC
From: Robert Logan
Topic: 606 Message: 19003

Good ideas on following the switches, Gary.

I subbed V9 originally, not the 6EV7. I don't have another 6EV7 to sub.

The measurement I just sent was of Pin 7 on the empty 6EV7 socket. Should I have measured Pin 7 of V9 instead? Been checking so much so fast maybe (probably) I got mixed up. Bob

Sent from my iPhone

On Feb 27, 2014, at 4:10 PM, Garey Barrell <k4oah@...> wrote:

Bob -

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19004. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 01:36:07 UTC
From: Robert Logan
Topic: 606 Message: 19004

Yeah I still don't quite understand loss of tone unless, with the 6EV7 going dead and the 12AX7 having low plate voltage, it either was not generated or, if it did, never made it to or back back from the receiver.

What is evident is that when I pulled the 6EV7, the plate voltages on the 12AX7 went back up to normal. I theorized on why I thought it did but I could be off base too. But clearly that was the physical (electrical) result of pulling the tube. It or something in its circuit affected V9. Bob

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> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7129 - Release Date: 02/27/14
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19005. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 01:44:10 UTC
From: Robert Logan
Topic: 606 Message: 19005

Ok Gary I just went back and measured the voltage on Pin 7 of V9. I think that's what you meant me to do in the first place.

That voltage is -.01. That won 't do much of anything to anything. Does that make sense?

Sorry for the confusion. Bob

Sent from my iPhone

On Feb 27, 2014, at 4:10 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Tells me you have a bad tube..... I thought your first post said you had swapped the tube. That negative voltage is
plenty to cut off V10b, de-energizing the relay. Rectified sidetone from V10a is plenty to overcome that bias and cause
the tube to conduct, pulling in the relay. UNLESS the plate voltage is too low on V9!! :-)

Certainly an odd set of symptoms. By dragging down the Plate voltage for V9 it led me down a garden path! :-)
Interesting, because loss of the signals generated by V9a, with the other symptoms sure suggested loss of that tone.
Once again, the horses beat the zebras! :-) I still don't see how that occurs, it'll take some research.

The switches on Drake schematics show the wafers seen from the front, and in the full CCW position. Even the rear side
of wafers are shown as viewed from the front, a sort of 'x-ray' view. The biggest problem in tracing through them is
figuring which fixed contacts are 'long' and so reach the 'lower' part of the wiper. I made up some small, transparent
overlays with lines on 30 degree intervals so I can see what happens when the switch is rotated. Another thing that
helps is a photocopy of the schematic that you can highlight with various colors to show connections made in each position.

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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19006. RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 02:03:02 UTC
From: <w9dz@...>
Topic: 18936 Message: 19006

Calibrator signal is essentially the same through all the filters (6.0, 1.8 and 300Hz) with the exception of the standard SSB filter.
After transmitting for a bit yesterday I thought the problem had corrected itself but it's back this evening.
The reason I asked about testing the PIN diodes was prompted by some Google searches and remarks from folks who said it required passing RF through the diode and application of DC bias. I'll take a look with my DVM and see what it shows. No, I don't have extender boards. I do have the service manual so I shouldn't have a problem locating the correct diodes.
Thanks.

19007. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 02:51:20 UTC
From: Garey Barrell
Topic: 606 Message: 19007

Put V10 back in and measure the voltage at Pin 6 and 7. I assume you are in SSB MODE when you're making these
measurements, GAIN at minimum. Measure in TUNE and again in SSB. Check the Pin 1 and Pin 6 of V9 in both positions.
Also measure C107 + terminal in each of these positions.

Recheck Pin 7 of V10 resistance to ground, and again with meter leads reversed.

73, Garey - K4OAH
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19008. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 02:54:14 UTC
From: Garey Barrell
Topic: 18936 Message: 19008

True, but at this point were looking for an open or shorted PIN diode. Easy to check with a DMM, especially if it has a
diode test range. (Diode symbol on range switch.) Also be sure and check the -5 VDC supply. (Typically -3.5 VDC)

73, Garey - K4OAH
Glen Allen, VA

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19009. T-4X "Asheville" Radio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 02:57:51 UTC
From: Steve Wedge
Topic: 19009 Message: 19009

This is the one that I've been working on.

Obviously, there's a bad connection in there somewhere - had it upside-down and it wouldn't put any RF out. Jiggled the carrier balance again and not much. Jiggled V8 and got power again. I've already lightly Cramolined the tube pins after running them all through the straighteners. Might be time for the old loosen/tighten screws routine.

Seemed to have low power out in TUNE. Cranked all the way, I can get about 30W. May try looking at the audio oscillator tomorrow or this weekend.

All power out seemed low. Put in a NOS 12BY7 and have more power. Now seeing the meter peg to get over 100W. Will have to check the meter resistors, as I think they're off. Evidence of tomfoolery on the metering board.

I can get about 90W out on 28.8 MHz. Good enough. Those finals were sold to me as pigs in a poke, so I'm not surprised. Still enough.

No output at all on 40 now and there was before the Big Splash. Will have to check the caps in the bandswitch. Another 18.1 crystal didn't make it louder.

Oh - the name. I won this one in an eBay auction and somehow, PayPal told the seller to ship to my son in Asheville. To his old apartment. After it made the circuit around Asheville, looking for Dan, it was returned to the seller, who then reshipped it to me. Good thing it's in nice cosmetic shape.

More, as it develops. I was going to do the other T-4X after this one, but I think I'm going to work on receivers for a while and crank them out. Have two R-4's and two R-4A's to get through.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19010. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 03:12:58 UTC
From: Robert Logan
Topic: 606 Message: 19010

Ok will do.

I apologize to everyone for taking up so much BW. Bon

Sent from my iPhone

On Feb 27, 2014, at 8:51 PM, Garey Barrell <k4oah@mindspring.com> wrote:

Put V10 back in and measure the voltage at Pin 6 and 7. I assume you are in SSB MODE when you're making these
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Also measure C107 + terminal in each of these positions.

Recheck Pin 7 of V10 resistance to ground, and again with meter leads reversed.

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> > > I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show any shorts but the tube tester
> > > isn't real world, of course, and not always truly indicative of a situation.
> > >
> > > I don't have another 6EV7 but will order one just case. In one version of the manual---i don't know if earlier or
> > > later than the version on your CD---there was a suggestion to use a 6EQ7. The suggestion might have been in service
> > > bulletin or something. Any recommendations on that idea?
> > >
> > > One of the fellows here on the list first suggested it might be a gassy 6EV7. Sounds pretty good now although I still
> > > need to check the components in the 6EV7 circuits as a possible cause.
> > >
> > > Any thoughts? Bob
> > >
> > > Sent from my iPhone
> > >
> > > On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
> <mailto:k4oah@...>
> > <mailto:k4oah@...>> wrote:
> > >
> > > Pull V10 and see what happens to the voltages on V9.

> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
> > >
> > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > > Robert Logan wrote:
> > > > Maybe this is source of the culprit. In doing resistance chart checks on all the tubes after all the other testing
> > > > and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B (VOX Relay Control) is at 27 ohms
> > > > instead of 500K. It's almost a dead short to ground. All the controls noted under the resistance chart were set
> > properly.
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> > > > > That would explain why it keys but then drops out after a half second. That would also explain why the VOX CW delay
> > > > control has little influence on the amount of delay. Also would explain why CW spot won't stay keyed. I use PTT on SSB
> > > > and AM so never noticed whether it would drop out.
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> > > > > It doesn't explain why, in Tune, the signal is audible in a separate RX and can be peaked but there is no power
> > > > output with any position on Gain except in the RX. But then transmit and full output shows on the W4 and receiver's S
> > > > meter.
> > > > >
> > > > > I can kinda see how an almost direct short to gnd in V10B could draw enough current to decrease voltage on V9. Kinda
> > > > but not entirely satisfactory.
> > > > >
> > > > > What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
> > > > >
>

19011. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 03:33:39 UTC
From: Garey Barrell
Topic: 606 Message: 19011

Bob -

Not a problem, this is what we're here for. Hopefully others are learning what NOT to do from our (my) dithering! :-)

I do NOT see any way that anything to do with V10 can affect the plate voltage on V9a and V9b. All three pins of V10b
could be tied together and grounded, and the only thing that would happen would be that the relay is pulled in. There
is no connection that I can see, even assuming a failed component, that V10 can affect the plate voltage on V9.

All your early symptoms can be explained by a loss of sidetone signal from V9a. The cause of this loss is the starving
of V9 by reduced plate voltage. The voltage stays solid on C107, which is the common plate supply point for V9a and V9b
-ONLY-. Each plate of V10 has it's own plate resistor directly to the +250 VDC bus.

What happens to the voltage on C107 when V10 is plugged in? If it stays steady, then monitor the voltage on Pin 6 of V9
with V10 OUT of the socket. Should be 140 VDC or so. Then plug in V10. Does the voltage drop immediately, or does it
take 10 seconds or so as V10 warms up???

Anybody paying attention out there????????? Any ideas??????

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Ok will do.
>
> I apologize to everyone for taking up so much BW. Bon
>
> Sent from my iPhone
>
> On Feb 27, 2014, at 8:51 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Put V10 back in and measure the voltage at Pin 6 and 7. I assume you are in SSB MODE when you're making these
> measurements, GAIN at minimum. Measure in TUNE and again in SSB. Check the Pin 1 and Pin

6 of V9 in both positions.
> Also measure C107 + terminal in each of these positions.
>
> Recheck Pin 7 of V10 resistance to ground, and again with meter leads reversed.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Robert Logan wrote:
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> >
> > Ok Gary I just went back and measured the voltage on Pin 7 of V9. I think that's what you meant me to do in the
> > first place.
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> > That voltage is -.01. That won 't do much of anything to anything. Does that make sense?
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> >
> > Bob -
> >
> > Tells me you have a bad tube..... I thought your first post said you had swapped the tube. That negative voltage is
> > plenty to cut off V10b, de-energizing the relay. Rectified sidetone from V10a is plenty to overcome that bias and cause
> > the tube to conduct, pulling in the relay. UNLESS the plate voltage is too low on V9!! :-)
> >
> > Certainly an odd set of symptoms. By dragging down the Plate voltage for V9 it led me down a garden path! :-)
> > Interesting, because loss of the signals generated by V9a, with the other symptoms sure suggested loss of that tone.
> > Once again, the horses beat the zebras! :-) I still don't see how that occurs, it'll take some research.
> >
> > The switches on Drake schematics show the wafers seen from the front, and in the full CCW position. Even the rear side
> > of wafers are shown as viewed from the front, a sort of 'x-ray' view. The biggest problem in tracing through them is
> > figuring which fixed contacts are 'long' and so reach the 'lower' part of the wiper. I made up some small, transparent

> > overlays with lines on 30 degree intervals so I can see what happens when the switch is rotated. Another thing that
> > helps is a photocopy of the schematic that you can highlight with various colors to show connections made in each
> > position.
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> > Robert Logan wrote:
> > >
> > >
> > > Pin 7 of the 6EV7 without the tube itself shows -4.2 Volts.
> > >
> > > Switch paths are nearly a complete mystery to me. My only guidance is a meter and sometimes s scope. But I don't
> > > know looking at a schematic whether you're looking at the front or back of a switch wafer. It's especially evident on
> > > radios from the 20s - 40s, assuming you can find a schematic at all. Symbology of components changed through the
> > > years, and some manufacturers didn't want others to copy their designs.
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> > >
> > > Cool! I don't see the path, but there is a lot of switching going on in there. What does Pin 7 show to ground with the
> > > tube out??
> > >
> > > 6EV7 is pretty easy to find, and not expensive. The 6FQ7 however is an audio favorite and so considerably more
> > > expensive. The FQ was only used because Drake couldn't get sufficient quantities of the EV for production. The EV was
> > > originally used for TV Remote controls, the old 'clunk-clunk-clunk' type!! It wouldn't hurt to get an EV, having a
> > > spare almost always obviates the need for one! :-)
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> > > Robert Logan wrote:
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> > > > Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.
> > > >
> > > > I can see why V10 didn't conduct all the time. With no load or input, there was
just enough residual or stray
> > > > resistance to keep it 'open'. With it, the tube went to ground. Without it, the
tube went back open.
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> > > > I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show
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> > > > > What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
> > > > > >
> > >
>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7130 - Release Date: 02/27/14
>

19012. Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 11:35:41 UTC
From: Chris Pickett
Topic: 19012 Message: 19012

Hi Guys,

I have a R4C and have some new filters for adding to the Rxr which I am sure will improve this already fine RX.

I have the INRAD GUF-1 and also two Sherwood Filters one for LSB and one for USB, I am fairly sure these replace the existing sideband filters already installed in the RX.

I wonder if anyone in the group has a set of installation instructions that they could scan and forward to me or indeed point me in the right direction please,

Kind regards 73

Chris
M5LRO

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

19013. Re: [DrakeRadio] Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 12:02:35 UTC
From: Jim Shorney
Topic: 19012 Message: 19013

Have you tried contacting Sherwood and Inrad?

http://www.sherweng.com/ham.html

https://www.inrad.net/home.php?cat=100

73

-Jim
NU0C

On Fri, 28 Feb 2014 11:35:41 -0000, Chris Pickett wrote:

>Hi Guys,
>
>I have a R4C and have some new filters for adding to the Rxr which I am sure
>will improve this already fine RX.
>
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>they could scan and forward to me or indeed point me in the right direction
>please,
>
>Kind regards 73
>
>Chris
>M5LRO
>
>
>---
>This email is free from viruses and malware because avast! Antivirus protection is active.
>http://www.avast.com
>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris,
"The Doctor's Wife"

19014. Re: [DrakeRadio] Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 12:11:02 UTC
From: Steve Wedge
Topic: 19012 Message: 19014

Make sure the Sherwood filters aren't for a TR-4. The filters in the R-4C are not marked lower or upper because the receiver only uses one filter at each position, such that you have one and only one 2.4 (or is it 2.8?) SSB filter from the factory.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Chris Pickett
Sent: Friday, February 28, 2014 6:35 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: R4C Filter Mods

Hi Guys,

I have a R4C and have some new filters for adding to the Rxr which I am sure will improve this already fine RX.

I have the INRAD GUF-1 and also two Sherwood Filters one for LSB and one for USB, I am fairly sure these replace the existing sideband filters already installed in the RX.

I wonder if anyone in the group has a set of installation instructions that they could scan and forward to me or indeed point me in the right direction please,

Kind regards 73

Chris
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http://www.avast.com

19015. Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 13:35:33 UTC
From: <w5rkl@...>
Topic: 19012 Message: 19015

Installing the GUF-1 filter is quite simple actually. The INRAD GUF-1 filter package contained instructions and a drilling template. If you do not have the installation instructions and drilling template, write INRAD and ask them if they would send you the instructions via e-mail.

The new INRAD GUF-1 filter installs in the same place as the original 8Khz BW First IF Xtal Filter. With the top cover removed, the receiver upright and the front panel facing you, the original 8Mhz BW first IF xtal filter is located to the right of T3 and T4. It is shown in the R4C manual, Figure 5-1, as the "8Khz BW First IF Xtal Filter". As stated above, the original 8Khz BW First IF Xtal Filter is removed and the new INRAD GUF-1 filter is installed in it's place. Installing the INRAD GUF-1 filter should take about 30 to 45 minutes time.

73
Mike W5RKL

19016. Re: [DrakeRadio] Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 13:43:13 UTC
From: <w5rkl@...>
Topic: 19012 Message: 19016

The factory sideband filter is located below the chassis towards the rear. Depending on the number of filter select positions on the front panel MODE switch determine where the "AM" filter is installed. The lowerr serial number R4Cs, with only 4 filter select position, the AM filter is installed along with additional CW filters, on the rear panel. The higher serial number R4Cs, MODE switch has 5 filter select positions, additional sideband and CW filters are installed on the rear panel and the AM filter is installed inside and directly above "V3".

Steve is correct, the R4C has only one filter for both USB and LSB. Sideband selection is accomplished using the BANDPASS TUNING control on the R4C's front panel. If you have 2 filters, one marked LSB and the other marked USB and you have a T4XB or T4XC, save them as spares or just sell them on eBay, they will be of no use to the R4C receiver.

73
Mike W5RKL

19017. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 14:55:09 UTC
From: Robert Logan
Topic: 606 Message: 19017

Ok will do the test from last night's email and this one today. I'll call them Tests 9 and 10! Ha.

Won't make any definite conclusions until then. I see all the things you're saying, both in my mind and on the schematic. I do know I have no side tone and VOX drops out quickly. Whether the two are related or not, I don't know. I do know voltage rises on V9 when V10 is pulled and it should have no effect. I do know the one resistance at V10 Pin 7 is low and there are only 4 components associated with it.

Having said that, I will do these 2 other tests and see if the results replicate themselves. Maybe I had bad eyes at the time.

BTW, I put a fresh battery in the DMM last night even tho it probably didn't need it. I was recording Comet SL-9 back in 1994 with a strip chart recorder and a battery powered home brewed integrator back and then just as Fragment S1 or S2 hit Jupiter, the battery began to die and the recording became a straight downward line and i lost about 2 minutes of 'signal'. I learned my lesson about 9V batteries then. Bob

Sent from my iPhone

On Feb 27, 2014, at 9:33 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Not a problem, this is what we're here for. Hopefully others are learning what NOT to do from our (my) dithering! :-)

I do NOT see any way that anything to do with V10 can affect the plate voltage on V9a and V9b. All three pins of V10b
could be tied together and grounded, and the only thing that would happen would be that the relay is pulled in. There
is no connection that I can see, even assuming a failed component, that V10 can affect the plate voltage on V9.

All your early symptoms can be explained by a loss of sidetone signal from V9a. The cause of this loss is the starving
of V9 by reduced plate voltage. The voltage stays solid on C107, which is the common plate supply point for V9a and V9b
-ONLY-. Each plate of V10 has it's own plate resistor directly to the +250 VDC bus.

What happens to the voltage on C107 when V10 is plugged in? If it stays steady, then monitor the voltage on Pin 6 of V9
with V10 OUT of the socket. Should be 140 VDC or so. Then plug in V10. Does the voltage drop immediately, or does it
take 10 seconds or so as V10 warms up???

Anybody paying attention out there????????? Any ideas??????

73, Garey - K4OAH
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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Also measure C107 + terminal in each of these positions.
>
> Recheck Pin 7 of V10 resistance to ground, and again with meter leads reversed.
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> > <mailto:k4oah@mindspring.com>> wrote:
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> > > Cool! I don't see the path, but there is a lot of switching going on in there. What
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> > > > Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.
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Sounds pretty good now although I
> still
> > > > need to check the components in the 6EV7 circuits as a possible cause.
> > > >

> > > > Any thoughts? Bob
> > > >
> > > > Sent from my iPhone
> > > >
> > > > On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
> <mailto:k4oah@...>
> > <mailto:k4oah@mindspring.com>
> > > <mailto:k4oah@...>> wrote:
> > > >
> > > > Pull V10 and see what happens to the voltages on V9.
> > > >
> > > > 73, Garey - K4OAH
> > > > Glen Allen, VA
> > > >
> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > and TR-4/C Service Supplement CDs
> > > > <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com>
<http://www.k4oah.com> <http://www.k4oah.com>>
> > > >
> > > > Robert Logan wrote:
> > > > > Maybe this is source of the culprit. In doing resistance chart checks on all the
tubes after all the other testing
> > > > and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B (VOX
Relay Control) is at 27 ohms
> > > > instead of 500K. It's almost a dead short to ground. All the controls noted under
the resistance chart were set
> > > properly.
> > > > >
> > > > > That would explain why it keys but then drops out after a half second. That would
also explain why the VOX CW
> delay
> > > > control has little influence on the amount of delay. Also would explain why CW spot
won't stay keyed. I use PTT
> on SSB
> > > > and AM so never noticed whether it would drop out.
> > > > >
> > > > > It doesn't explain why, in Tune, the signal is audible in a separate RX and can
be peaked but there is no power
> > > > output with any position on Gain except in the RX. But then transmit and full
output shows on the W4 and
> receiver's S
> > > > meter.
> > > > >
> > > > > I can kinda see how an almost direct short to gnd in V10B could draw enough
current to decrease voltage on V9.
> Kinda
> > > > but not entirely satisfactory.
> > > > >
> > > > > What do you think? I know I haven't found what makes the resistance at pin 7 of
V10B so low.

> > > > >
> >
>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7130 - Release Date: 02/27/14
>

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•

19018. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 15:01:48 UTC
From: whitebear1122@...
Topic: 606 Message: 19018

Speaking for myself, I am glad when people post their repair problems and solutions no matter how big or small because eventually I may have that problem and I'd like a heads up on the solution . I pretty much read all the problem posts just to learn from them. I still wonder where Garey acquired his phenomenal Drake repair knowledge, it's almost not of this world :) hi hi Thanks, 73, Scott WA9WFA

19019. First TR-4 SSB QSO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 15:17:33 UTC
From: whitebear1122@...
Topic: 606 Message: 19019

Last night I fired up the TR-4CW-RIT for the first time and had a nice hour long QSO on 20m SSB with a fellow up the New England way. The TR-4CW-RIT worked great, was stable, and I didn't have to touch the dial at all during the entire QSO. I don't think he was as impressed with my running Drake equipment as I was . hi hi

I did notice the radio gets very hot, rear left, over the sweep tubes. Radio came with an externally mounted fan on the rear using tie wraps, and externally powered. For the time being I set a muffin fan w/ rubber feet on the cabinet and it quickly cooled it down.

Are you TR-4 and T-4X guys powering fans off of filament voltages or externally.
Just wondering if there is enough headroom on filament current to power a small fan. I am familar with rectifiers and doublers so I can get the fan powered with the right voltages as long as I have adequate source current.

I would also like to buy a TR-4CW-RIT manual if anyone has one available.

73, Scott WA9WFA

Finally Drake

19020. Re: [DrakeRadio] Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 15:17:51 UTC
From: Doug
Topic: 19012 Message: 19020

I've pondered the GUF 1 replacement but wondered if there was any real noticeable difference between the original 8k filter and the Inrad 8k filter on SSB.

Sent from my iPhone

> On Feb 28, 2014, at 8:35, <w5rkl@...> wrote:
>
> Installing the GUF-1 filter is quite simple actually. The INRAD GUF-1 filter package contained instructions and a drilling template. If you do not have the installation instructions and drilling template, write INRAD and ask them if they would send you the instructions via e-mail.
>
> The new INRAD GUF-1 filter installs in the same place as the original 8Khz BW First IF Xtal Filter. With the top cover removed, the receiver upright and the front panel facing you, the original 8Mhz BW first IF xtal filter is located to the right of T3 and T4. It is shown in the R4C manual, Figure 5-1, as the "8Khz BW First IF Xtal Filter". As stated above, the original 8Khz BW First IF Xtal Filter is removed and the new INRAD GUF-1 filter is installed in it's place. Installing the INRAD GUF-1 filter should take about 30 to 45 minutes time.
>
> 73
> Mike W5RKL
>
>

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19021. Re: [DrakeRadio] First TR-4 SSB QSO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 15:28:00 UTC
From: Eddy Swynar
Topic: 606 Message: 19021

On 2014-02-28, at 10:17 AM, whitebear1122@... wrote:

>
> Last night I fired up the TR-4CW-RIT for the first time and had a nice hour long QSO on 20m SSB with a fellow up the New England way. The TR-4CW-RIT worked great, was stable, and I didn't have to touch the dial at all during the entire QSO. I don't think he was as impressed with my running Drake equipment as I was . hi hi
>
>
> I did notice the radio gets very hot, rear left, over the sweep tubes. Radio came with an externally mounted fan on the rear using tie wraps, and externally powered. For the time being I set a muffin fan w/rubber feet on the cabinet and it quickly cooled it down.
>
>
> Are you TR-4 and T-4X guys powering fans off of filament voltages or externally. Just wondering if there is enough headroom on filament current to power a small fan. I am familar with rectifiers and doublers so I can get the fan powered with the right voltages as long as I have adequate source current.
>
>
> I would also like to buy a TR-4CW-RIT manual if anyone has one available.
>
>
> 73, Scott WA9WFA
>

Hi Scott,

Yes, by all means, cool those rascals down...!

An exhaust fan---i.e. one that draws air UP from the final amp cage---seems to work best. I use a small computer fan here, with its own wall wart plug-in supply.

Some years ago I made actual side-by-side tests of PTO drift in my T-4X with, and without, the cooling fan: the results were actually easily measurable, & the incorporation of any fan is certainly worth the little effort it might take to install---not only for the longevity of those sweep tubes, but the entire rig itself!

~73~ de Eddy VE3CUI - VE3XZ
>
>

19022. R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 15:17:12 UTC
From: <rochep@...>
Topic: 19022 Message: 19022

I am in cleaning up a "new" R4A and I have a question about the preselector coils. I don't know how much UP and DOWN play there should be for the "iron" cores that go into coils. What does "all the way down" or "all the way up" look like? I can gently pull them "up" or "down" a bit while turning the knob, but this is obviously not a good strategy. If the cores ever "stick" in the coil, is there lubricant that people use? I am new to this, this is my first Drake, it seems to work OK but I could not resist tearing it apart cleaning, studying it, etc…

Paul K3STX

19023. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:01:47 UTC
From: Robert Logan
Topic: 1054 Message: 19023

Ok Gary, here are the measurements for the two emails.

Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.

SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
TUNE: V9, Pin 1 32.2 V, Pin 6 71V, C107 197.8 V
Resistance: V10 Pin 7 - 9.9M, reversed leads 5.3M

Test 10. C107 w/ V10 in - 215.7 V
V9 Pin 6 w/o V10 - 250.6 V
V9 Pin 6 w/ V10 in - 75.4, immediate drop in V
That's the latest. Bob

Sent from my iPhone

19024. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:06:08 UTC
From: Robert Logan
Topic: 606 Message: 19024

Maybe Gary was abducted to the Drake universe for an intensive hands-on course and then sent back for all of us? Ha.

I can read schematics and signal flow pretty well but Gary's understanding of connectivity and interactions and causes is awesome. Bob

Sent from my iPhone

On Feb 28, 2014, at 9:01 AM, whitebear1122@... wrote:

Speaking for myself, I am glad when people post their repair problems and solutions no matter how big or small because eventually I may have that problem and I'd like a heads up on the solution. I pretty much read all the problem posts just to learn from them. I still wonder where Garey acquired his phenomenal Drake repair knowledge, it's almost not of this world :) hi hi Thanks, 73, Scott WA9WFA

19025. Re: [DrakeRadio] R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:19:57 UTC
From: Steve Wedge
Topic: 19022 Message: 19025

Paul, the problem is most likely due to slippage of the Jackson Drive, right behind the PRESELECTOR control. Sometimes, people re-lube them without knowing that the drive needs a certain amount of friction from the grease in order to operate properly. There are also times when a groove has been worn in the shaft from years of the ball bearings riding on the same spot. I do believe WB4HFN's website has one possible fix for that problem.

If you do take it apart and clean it, use something similar to wheel bearing grease (I.e., really thick and viscous) when putting it back together. The whole assembly is held in place by pressure from the slug rack. It can be finicky but once you get it set up, that should be the end of it.

I just got an R-4A in that's sticking toward the lower end, so I'll be doing the same thing shortly...

73,

It's easy to remove
Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@comcast.net
Sent: Friday, February 28, 2014 10:17 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] R4A Preselector coils

I am in cleaning up a "new" R4A and I have a question about the preselector coils. I don't know how much UP and DOWN play there should be for the "iron" cores that go into coils. What does "all the way down" or "all the way up" look like? I can gently pull them "up" or "down" a bit while turning the knob, but this is obviously not a good strategy. If the cores ever "stick" in the coil, is there lubricant that people use? I am new to this, this is my first Drake, it seems to work OK but I could not resist tearing it apart cleaning, studying it, etc…

Paul K3STX

19026. Re: [DrakeRadio] R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:22:57 UTC
From: Garey Barrell
Topic: 19022 Message: 19026

Paul -

Welcome to the fold.... First question is: Is this an 'early' or 'late' R-4A?? There ARE significant differences. s/n?

Do you have a manual?? Can't tell the players without a scorecard!

When the PreSelector is turned fully clockwise, the top edge of the slugs should extend 9/16" above the top of the fiber
tubes. They should all be the same. Turned fully counter-clockwise, the top edge of the slugs should be just below the
top of the tube.

I've never seen a need to lubricate them. The drive mechanism for the 'rack' has some play in it, but is of no
consequence. Answer, "Don't pull up or down on the rack. Use the knob!'

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I am in cleaning up a "new" R4A and I have a question about the preselector coils. I don't know how much UP and DOWN
> play there should be for the "iron" cores that go into coils. What does "all the way down" or "all the way up" look
> like? I can gently pull them "up" or "down" a bit while turning the knob, but this is obviously not a good strategy.
> If the cores ever "stick" in the coil, is there lubricant that people use? I am new to this, this is my first Drake,
> it seems to work OK but I could not resist tearing it apart cleaning, studying it, etc…
>
> Paul K3STX
>
>

19027. Re: [DrakeRadio] First TR-4 SSB QSO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:25:52 UTC
From: N9JCQ@...
Topic: 606 Message: 19027

I use a separately powered exhaust fan that sits on top of the cabinet to draw the heat off the PA tubes. However you set it up, use the fan to pull the air off, not blow on the tubes.
Joe, N9JCQ

-----Original Message-----
From: whitebear1122 <whitebear1122@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Feb 28, 2014 9:17 am
Subject: [DrakeRadio] First TR-4 SSB QSO

Last night I fired up the TR-4CW-RIT for the first time and had a nice hour long QSO on 20m SSB with a fellow up the New England way. The TR-4CW-RIT worked great, was stable, and I didn't have to touch the dial at all during the entire QSO. I don't think he was as impressed with my running Drake equipment as I was . hi hi

I did notice the radio gets very hot, rear left, over the sweep tubes. Radio came with an externally mounted fan on the rear using tie wraps, and externally powered. For the time being I set a muffin fan w/rubber feet on the cabinet and it quickly cooled it down.

Are you TR-4 and T-4X guys powering fans off of filament voltages or externally. Just wondering if there is enough headroom on filament current to power a small fan. I am familar with rectifiers and doublers so I can get the fan powered with the right voltages as long as I have adequate source current.

I would also like to buy a TR-4CW-RIT manual if anyone has one available.

73, Scott WA9WFA
Finally Drake

19028. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:34:41 UTC
From: Garey Barrell
Topic: 606 Message: 19028

Bob -

OK. That's better, I was really concerned about that 27 ohm reading at Pin 7 of V10!

By the way, 'No sidetone' and 'VOX drops out quickly' are both definitely related to V9a and each other. The SIDETONE
is what 'holds' the VOX in for the CW MODE. In SSB, the voice modulation is rectified and integrated to 'hold' the VOX
in. The R107, C115, CR17 network is what 'pops' the VOX on for the first half-second.

The resistances in just about all the points shown in the chart are affected by the 'polarity' and 'magnitude' of the
ohmmeter voltage. There are almost always multiple paths, some including semiconductors. So aside from polarity
differences, good DMMs use a low enough voltage on the ohmmeter ranges that semiconductors are NOT turned on, reducing
the effect on readings.

Ah, strip chart recorders... The techs used to have contests to see how far they could shoot paper out of the launch
recorders!. :-)

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

Robert Logan wrote:
>
>
> Ok will do the test from last night's email and this one today. I'll call them Tests 9 and 10! Ha.
>
> Won't make any definite conclusions until then. I see all the things you're saying, both in my mind and on the
> schematic. I do know I have no side tone and VOX drops out quickly. Whether the two are related or not, I don't
> know. I do know voltage rises on V9 when V10 is pulled and it should have no effect. I do know the one resistance at
> V10 Pin 7 is low and there are only 4 components associated with it.
>
> Having said that, I will do these 2 other tests and see if the results replicate themselves. Maybe I had bad eyes at
> the time.
>

> BTW, I put a fresh battery in the DMM last night even tho it probably didn't need it. I was recording Comet SL-9 back
> in 1994 with a strip chart recorder and a battery powered home brewed integrator back and then just as Fragment S1 or
> S2 hit Jupiter, the battery began to die and the recording became a straight downward line and i lost about 2 minutes
> of 'signal'. I learned my lesson about 9V batteries then. Bob
>
> Sent from my iPhone
>
> On Feb 27, 2014, at 9:33 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Bob -
>
> Not a problem, this is what we're here for. Hopefully others are learning what NOT to do from our (my) dithering! :-)
>
> I do NOT see any way that anything to do with V10 can affect the plate voltage on V9a and V9b. All three pins of V10b
> could be tied together and grounded, and the only thing that would happen would be that the relay is pulled in. There
> is no connection that I can see, even assuming a failed component, that V10 can affect the plate voltage on V9.
>
> All your early symptoms can be explained by a loss of sidetone signal from V9a. The cause of this loss is the starving
> of V9 by reduced plate voltage. The voltage stays solid on C107, which is the common plate supply point for V9a and V9b
> -ONLY-. Each plate of V10 has it's own plate resistor directly to the +250 VDC bus.
>
> What happens to the voltage on C107 when V10 is plugged in? If it stays steady, then monitor the voltage on Pin 6 of V9
> with V10 OUT of the socket. Should be 140 VDC or so. Then plug in V10. Does the voltage drop immediately, or does it
> take 10 seconds or so as V10 warms up???
>
> Anybody paying attention out there????????? Any ideas??????
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> >
> >
> > Ok will do.
> >

> > I apologize to everyone for taking up so much BW. Bon
> >
> > Sent from my iPhone
> >
> > On Feb 27, 2014, at 8:51 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
> <mailto:k4oah@...>> wrote:
> >
> > Put V10 back in and measure the voltage at Pin 6 and 7. I assume you are in SSB MODE
when you're making these
> > measurements, GAIN at minimum. Measure in TUNE and again in SSB. Check the Pin 1 and
Pin 6 of V9 in both positions.
> > Also measure C107 + terminal in each of these positions.
> >
> > Recheck Pin 7 of V10 resistance to ground, and again with meter leads reversed.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com>>
> >
> > Robert Logan wrote:
> > >
> > >
> > > Ok Gary I just went back and measured the voltage on Pin 7 of V9. I think that's what
you meant me to do in the
> > > first place.
> > >
> > > That voltage is -.01. That won 't do much of anything to anything. Does that make
sense?
> > >
> > > Sorry for the confusion. Bob
> > >
> > > Sent from my iPhone
> > >
> > > On Feb 27, 2014, at 4:10 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
> <mailto:k4oah@...>
> > <mailto:k4oah@...>> wrote:
> > >
> > > Bob -
> > >
> > > Tells me you have a bad tube..... I thought your first post said you had swapped
the tube. That negative voltage is
> > > plenty to cut off V10b, de-energizing the relay. Rectified sidetone from V10a is
plenty to overcome that bias and
> cause
> > > the tube to conduct, pulling in the relay. UNLESS the plate voltage is too low on
V9!! :-)
> > >

> > > Certainly an odd set of symptoms. By dragging down the Plate voltage for V9 it led me down a garden path! :-)
> > > Interesting, because loss of the signals generated by V9a, with the other symptoms sure suggested loss of that tone.
> > > Once again, the horses beat the zebras! :-) I still don't see how that occurs, it'll take some research.
> > >
> > > The switches on Drake schematics show the wafers seen from the front, and in the full CCW position. Even the rear side
> > > of wafers are shown as viewed from the front, a sort of 'x-ray' view. The biggest problem in tracing through them is
> > > figuring which fixed contacts are 'long' and so reach the 'lower' part of the wiper. I made up some small, transparent
> > > overlays with lines on 30 degree intervals so I can see what happens when the switch is rotated. Another thing that
> > > helps is a photocopy of the schematic that you can highlight with various colors to show connections made in each
> > > position.
> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
> > >
> > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > > <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com> <http://www.k4oah.com>>
> > >
> > > Robert Logan wrote:
> > > >
> > > >
> > > > Pin 7 of the 6EV7 without the tube itself shows -4.2 Volts.
> > > >
> > > > Switch paths are nearly a complete mystery to me. My only guidance is a meter and sometimes s scope. But I don't
> > > > know looking at a schematic whether you're looking at the front or back of a switch wafer. It's especially
> evident on
> > > > radios from the 20s - 40s, assuming you can find a schematic at all. Symbology of components changed through the
> > > > years, and some manufacturers didn't want others to copy their designs.
> > > >
> > > > What does the voltage on Pin 7 tell you?
> > > >
> > > > Bob
> > > >
> > > > Sent from my iPhone
> > > >
> > > > On Feb 26, 2014, at 8:51 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
> <mailto:k4oah@...>
> > <mailto:k4oah@...>
> > > <mailto:k4oah@...>> wrote:

> > > >
> > > > Cool! I don't see the path, but there is a lot of switching going on in there. What does Pin 7 show to ground
> with the
> > > > > tube out??
> > > > >
> > > > > 6EV7 is pretty easy to find, and not expensive. The 6FQ7 however is an audio favorite and so considerably more
> > > > > expensive. The FQ was only used because Drake couldn't get sufficient quantities of the EV for production. The
> EV was
> > > > > originally used for TV Remote controls, the old 'clunk-clunk-clunk' type!! It wouldn't hurt to get an EV, having a
> > > > > spare almost always obviates the need for one! :-)
> > > > >
> > > > > 73, Garey - K4OAH
> > > > > Glen Allen, VA
> > > > >
> > > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > > > >
> > > > > Robert Logan wrote:
> > > > > >
> > > > > >
> > > > > > Yep, that did it! Voltages on V9 back up to 'normal' with V10 pulled.
> > > > > >
> > > > > > I can see why V10 didn't conduct all the time. With no load or input, there was just enough residual or stray
> > > > > > resistance to keep it 'open'. With it, the tube went to ground. Without it, the tube went back open.
> > > > > >
> > > > > > I checked for shorts in the tube with my Sencore MU-150 tube tester. It didn't show any shorts but the tube tester
> > > > > > isn't real world, of course, and not always truly indicative of a situation.
> > > > > >
> > > > > > I don't have another 6EV7 but will order one just case. In one version of the manual---i don't know if earlier or
> > > > > > later than the version on your CD---there was a suggestion to use a 6EQ7. The suggestion might have been in
> service
> > > > > > bulletin or something. Any recommendations on that idea?
> > > > > >
> > > > > > One of the fellows here on the list first suggested it might be a gassy 6EV7. Sounds pretty good now although I
> > still
> > > > > > need to check the components in the 6EV7 circuits as a possible cause.
> > > > > >
> > > > > > Any thoughts? Bob

> > > > >
> > > > > Sent from my iPhone
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> > > > > On Feb 26, 2014, at 4:46 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
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> > > > >
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> > > > > 73, Garey - K4OAH
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<http://www.k4oah.com> <http://www.k4oah.com>
> <http://www.k4oah.com>>
> > > > > >
> > > > > Robert Logan wrote:
> > > > > > Maybe this is source of the culprit. In doing resistance chart checks on all
the tubes after all the other
> testing
> > > > > and lifting of CR15 and so on before, i found that Pin 7 (input grid) of V10B
(VOX Relay Control) is at 27 ohms
> > > > > instead of 500K. It's almost a dead short to ground. All the controls noted under
the resistance chart were set
> > > > properly.
> > > > > > >
> > > > > > That would explain why it keys but then drops out after a half second. That
would also explain why the VOX CW
> > delay
> > > > > > control has little influence on the amount of delay. Also would explain why CW
spot won't stay keyed. I use PTT
> > on SSB
> > > > > > and AM so never noticed whether it would drop out.
> > > > > > >
> > > > > > It doesn't explain why, in Tune, the signal is audible in a separate RX and can
be peaked but there is no power
> > > > > > output with any position on Gain except in the RX. But then transmit and full
output shows on the W4 and
> > receiver's S
> > > > > > meter.
> > > > > > >
> > > > > > I can kinda see how an almost direct short to gnd in V10B could draw enough
current to decrease voltage on V9.
> > Kinda
> > > > > > but not entirely satisfactory.
> > > > > > >

> > > > > > What do you think? I know I haven't found what makes the resistance at pin 7 of V10B so low.
> > > > > >
>

19029. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 16:46:13 UTC
From: Garey Barrell
Topic: 1054 Message: 19029

Bob -

OK, I think we're getting close..... (Again!) :-)

Check the voltage on both ends of R90, with and without V10 in the socket.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Ok Gary, here are the measurements for the two emails.
>
> Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.
>
> SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
> TUNE: V9, Pin 1 32.2 V, Pin 6 71V, C107 197.8 V
> Resistance: V10 Pin 7 - 9.9M, reversed leads 5.3M
>
> Test 10. C107 w/ V10 in - 215.7 V
> V9 Pin 6 w/o V10 - 250.6 V
> V9 Pin 6 w/ V10 in - 75.4, immediate drop in V
> That's the latest. Bob
>
>
> Sent from my iPhone
>
>
> ------------------------------------
>
> Yahoo Groups Links
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> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14
>
>

19030. RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:05:37 UTC
From: <rochep@...>
Topic: 19022 Message: 19030

Thanks guys,

It is S/N 5028, so a late model R4A with 11 tubes. Yes, I have a manual. The distances you mention seem about right, so I am probably good. I am loathe to fix something that ain't broken. This baby looks GREAT, but I did not operate it long enough to know it PLAYS great. I was sort of scared having it run very long with the original electrolytics in there. I used to be in the school of replace electrolytics even before you plug it in, but from what I read many Drake users simply keep the original electrolytic can going until something tells them to replace. Would that same advice be for the 3 other electrolytics in there?

p

19031. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:12:39 UTC
From: Don Cunningham
Topic: 19022 Message: 19031

NO, I would replace the electrolytics if it were mine and I planned to use it. Ask one of our list members now looking for a replacement power transformer for his. They are MUCH more expensive than electrolytics, IF you can find one. Just my .02 worth, worth about what you paid for the advice though.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14

19032. Re: [DrakeRadio] Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:17:10 UTC
From: Doug
Topic: 19012 Message: 19032

Sent from my iPhone

> On Feb 28, 2014, at 10:17, Doug <dcoffman@pdswireless.com> wrote:
>
> I've pondered the GUF 1 replacement but wondered if there was any real noticeable difference between the original 8k filter and the Inrad 8k filter on SSB.
>
> Sent from my iPhone
>
>> On Feb 28, 2014, at 8:35, <w5rkl@...> wrote:
>>
>> Installing the GUF-1 filter is quite simple actually. The INRAD GUF-1 filter package contained instructions and a drilling template. If you do not have the installation instructions and drilling template, write INRAD and ask them if they would send you the instructions via e-mail.
>>
>> The new INRAD GUF-1 filter installs in the same place as the original 8Khz BW First IF Xtal Filter. With the top cover removed, the receiver upright and the front panel facing you, the original 8Mhz BW first IF xtal filter is located to the right of T3 and T4. It is shown in the R4C manual, Figure 5-1, as the "8Khz BW First IF Xtal Filter". As stated above, the original 8Khz BW First IF Xtal Filter is removed and the new INRAD GUF-1 filter is installed in it's place. Installing the INRAD GUF-1 filter should take about 30 to 45 minutes time.
>>
>> 73
>> Mike W5RKL
>>
>>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

19033. Re: [DrakeRadio] First TR-4 SSB QSO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:27:03 UTC
From: Richard Knoppow
Topic: 606 Message: 19033

I have a T4XB and TR-4, I use fans on both. My fans are AC operated rated at 220 volts but run on 120. They move plenty of air to keep the transmitters cool but make no noise. When I got them I got protective grills for both. I mount them using foam weather stipping from the hardware store. I ran a strip around the periphery of each fan. This gives a little vibration isolation and seals the bottom of the fan to the top of the chassis cover. The fans are not fastened to the cover but there is enough friction from the stipping to prevent them from moving around. I have a cord switch on each fan with the switch pulled around under the unit. BTW, the same fans work fine on the R4B sitting over the power transformer. Without the fan the transformer gets too hot to touch, with the fan it stays cool. All fans blow OUT.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

----- Original Message -----
From: <whitebear1122@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 28, 2014 7:17 AM
Subject: [DrakeRadio] First TR-4 SSB QSO

Last night I fired up the TR-4CW-RIT for the first time and had a nice hour long QSO on 20m SSB with a fellow up the New England way. The TR-4CW-RIT worked great, was stable, and I didn't have to touch the dial at all during the entire QSO. I don't think he was as impressed with my running Drake equipment as I was . hi hi

I did notice the radio gets very hot, rear left, over the sweep tubes. Radio came with an externally mounted fan on the rear using tie wraps, and externally powered. For the time being I set a muffin fan w/ rubber feet on the cabinet and it quickly cooled it down.

Are you TR-4 and T-4X guys powering fans off of filament voltages or externally. Just wondering if there is enough headroom on filament current to power a small fan. I am familar with rectifiers and doublers so I can get the fan powered with the right voltages as long as I have adequate

source current.

I would also like to buy a TR-4CW-RIT manual if anyone has one available.

73, Scott WA9WFA

Finally Drake

19034. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:27:16 UTC
From: <rochep@...>
Topic: 19022 Message: 19034

I already HAVE the replacement electrolytic can from Hayseed Hamfest, thanks for your advice!

p

19035. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:32:43 UTC
From: Richard Knoppow
Topic: 19022 Message: 19035

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, February 28, 2014 9:05 AM
Subject: [DrakeRadio] RE: R4A Preselector coils

> Thanks guys,
>
> It is S/N 5028, so a late model R4A with 11 tubes. Yes, I
> have a manual. The distances you mention seem about right,
> so I am probably good. I am loathe to fix something that
> ain't broken. This baby looks GREAT, but I did not operate
> it long enough to know it PLAYS great. I was sort of
> scared having it run very long with the original
> electrolytics in there. I used to be in the school of
> replace electrolytics even before you plug it in, but from
> what I read many Drake users simply keep the original
> electrolytic can going until something tells them to
> replace. Would that same advice be for the 3 other
> electrolytics in there?
>
> p

No, I don't trust old electrolytic caps at all
especially if the radio has been out of service for a while.
New ones are available and not expensive. If no one has
suggested it yet try Hayseed Hamfest for can electrolytics,
Tom makes brand new ones (not re-stuffed old cans) and is
reasonably priced. I've used a number of his caps and have
been very satisfied.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19036. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 17:35:43 UTC
From: Don Cunningham
Topic: 19022 Message: 19036

No problem. Yes, it is a pain to change the can, but well worth it if, no when, it saves the transformer.
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14

19037. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 19:02:58 UTC
From: Garey Barrell
Topic: 19022 Message: 19037

Paul -

I would never tell anyone to NOT replace electrolytics in old gear. Even Drake....

However, (there's always a 'however',) I have had/used literally hundreds of pieces of Drake gear over the last 50+
years, and I just had my first electrolytic capacitor failure last year. The hum increased slightly, and then a little
more. Sure enough, the ESR of the second stage B+ filter had gone to about 300 ohms, resulting in considerable hum. A
new Hayseed cap and all was well again.

That said, I have NEVER seen a power transformer failure in either receiver or transmitter, EXCEPT where the 750 mA AC
fuse had been replaced with a 10A fuse, a piece of #00 solid copper wire, or simply wired across the fuseholder. The
caps Drake used are very well behaved, and just dry out with age. 'When' seems to be affected primarily by temperature
and perhaps humidity. I have repaired radios, with blown fuses, and a shorted electrolytic, usually the first stage of
the HV supply. These from users who were smart enough to seek help when the fuse blew, instead of just putting in a
bigger one!! :-)

High ESR in the BIAS supply cap can present as some weird behavior, as can the one on the Calibrator board in the B
Series. I think everyone knows about the high 'backwave' on the sidetone caused by the can cap in the T-4X(any). The
AC-4 supply is also relatively free from capacitor failure. Again, the only transformer failure I have seen was caused
by fuse 'substitution'.

So aside from the 'inconvenience' factor, almost assured by Murphy to be significant, I see no need to 'shotgun' replace
electrolytics in Drake gear. But again, no harm will come from replacing them, as long as you (or someone else) does
the job correctly!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>

>
> Thanks guys,
>
> It is S/N 5028, so a late model R4A with 11 tubes. Yes, I have a manual. The distances you mention seem about right,
> so I am probably good. I am loathe to fix something that ain't broken. This baby looks GREAT, but I did not operate it
> long enough to know it PLAYS great. I was sort of scared having it run very long with the original electrolytics in
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>

19038. TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 19:30:15 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 19038

Hi, So it starts :)
I've picked it and the PS75 power supply up (will post pictures as soon as I can get some decent ones taken). Some really interesting documentation, firstly (although not stated in the advert) its got a full original manual together with a circuit diagram as well !!!! (but thanks anyway Gary much appreciated!), it also has an original print advert, a lot of handwritten notes as well. Its serial number is 1099 - no idea where that places it in age terms, also has documentation for a Noise Blanker which looks like its been installed.It also has something I've never seen before an interim manual. This is type written with photo's etc. but is stapled together as obviously is prior to the 'proper' manual as it says "The final version of the manual for the TR-5 is still in process. You will receive a copy when it is printed provided you return the enclosed warranty card. Complete service information will be included in the final manual'. The original owner (I'm the third apparently!) obviously did as I have both :)

Also and more interestingly a letter written to Drake (Mr William A Frost, service manager) in 1995 detailing the fault, together with their reply back on the 19th July 1995. I haven't turned it on yet to establish if this is the fault but the letter to drake talks about "essentially there is no usb or lsb reception or transmission and no audio output" - then talks about a failure on usb closely followed by lsb failing.

The response from Drake suggest checking cables, especially the coax cbale around the BFO board, then U-801 MC1496 on the tx/rx mixer board, then q-806 (2N4427) and 2N5109 (Q-802).

So we shall see what happens when I start to fault find in the next day or two if this fault still exists or another...

Condition wise its looks good but very dusty (for very read filthy), all looks original, and everything seems to move well. It was being sold by a radio club after clearing out (Sadly) from a silent key, and they believed it was simply put away in his shack and sadly never used again.

I also picked up an HW-7 (more of that later) and a wonderful (non DRAKE) high power ATU (CAPCO 3000), again in a very dirty but original condition, both stated as working but we shall see, and a DAIWA 30A power supply - you can never have enough power supplies can you :)

Will update when I get started - excited - having to stop myself diving straight in :)

73's
Chris.

19039. RE: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 19:32:14 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 19039

Sorry HW-7 should of course read WH7 a Drake Wattmeter - showing my Heathkit roots !!!

---In DrakeRadio@yahoogroups.com, <chrismortlock1@...> wrote:

Hi, So it starts :)
I've picked it and the PS75 power supply up (will post pictures as soon as I can get some decent ones taken). Some really interesting documentation, firstly (although not stated in the advert) its got a full original manual together with a circuit diagram as well !!!! (but thanks anyway Gary much appreciated!), it also has an original print advert, a lot of handwritten notes as well. Its serial number is 1099 - no idea where that places it in age terms, also has documentation for a Noise Blanker which looks like its been installed.It also has something I've never seen before an interim manual. This is type written with photo's etc. but is stapled together as obviously is prior to the 'proper' manual as it says "The final version of the manual for the TR-5 is still in process. You will receive a copy when it is printed provided you return the enclosed warranty card. Complete service information will be included in the final manual'. The original owner (I'm the third apparently!) obviously did as I have both :)

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Will update when I get started - excited - having to stop myself diving straight in :)

73's
Chris.

19040. Re: [DrakeRadio] RE: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 19:41:56 UTC
From: Keith R. Erickson
Topic: 18930 Message: 19040

I have serial no. 1207 here with NB and 500 hz filter.

K0gnw,
Wayzata, MN

Sent from my iPad
>

19041. Re: [DrakeRadio] TR-5 stuff

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 19:53:37 UTC
From: Chgypsy@...
Topic: 19041 Message: 19041

chrismortlock1@... (mailto:chrismortlock1@...) writes:

circuit diagram as well !!!! (but thanks anyway Gary much appreciated!),
You will like that schematic in that you can blow it up and read the stuff.

Its serial number is 1099 - no idea where that places it in age also has
documentation for a Noise Blanker which looks like its been installed
In both cases go to _www.wb4hfn_ (http://www.wb4hfn) and the Drake stuff.
On the left is serial number data base, if you still have the small tear
off cardboard "tag" that gives the serial number and check out date yours
could be in that base. Just email wb4hfn@...

The second thing ...you say it looks like NB has been installed. Pictures
under TR5 NB manual on WB4HFN.
Carl wd8nhk

19042. Re: R4C Filter Mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 20:07:00 UTC
From: Chris Pickett
Topic: 19012 Message: 19042

Thanks to all that answered.

I have dug out the filters and mailed Rob Sherwood for some assistance on those.

Inrad GUF-1 filter instructions have been forthcoming from another source and looks to be an easy change out.

Next time I have some time I will get it done and let you know how I get on and if it makes much of a difference.

Vry 73
Chris
M5LRO

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

19043. Re: [DrakeRadio] First TR-4 SSB QSO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 20:54:51 UTC
From: William Houghton
Topic: 606 Message: 19043

Congrats on the first QSO. Its always exciting when you put it on the air for the first time!

73,

Bill, WA6NEQ

From: "whitebear1122@..." <whitebear1122@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, February 28, 2014 7:17 AM
Subject: [DrakeRadio] First TR-4 SSB QSO

Last night I fired up the TR-4CW-RIT for the first time and had a nice hour long QSO on 20m SSB with a fellow up the New England way. The TR-4CW-RIT worked great, was stable, and I didn't have to touch the dial at all during the entire QSO. I don't think he was as impressed with my running Drake equipment as I was . hi hi

I did notice the radio gets very hot, rear left, over the sweep tubes. Radio came with an externally mounted fan on the rear using tie wraps, and externally powered. For the time being I set a muffin fan w/rubber feet on the cabinet and it quickly cooled it down.

Are you TR-4 and T-4X guys powering fans off of filament voltages or externally.
Just wondering if there is enough headroom on filament current to power a small fan. I am familar with rectifiers and doublers so I can get the fan powered with the right voltages as long as I have adequate source current.

I would also like to buy a TR-4CW-RIT manual if anyone has one available.

73, Scott WA9WFA
Finally Drake

19044. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 22:06:10 UTC
From: Robert Logan
Topic: 1054 Message: 19044

I can feel it in my bones. Aaallmost there, homing in on the Death Star vent even like and Wedge missed a couple ofttimes.

I really appreciate the help. I want that Drake back on the air!

Will do the check tonight. Had to do some property clearing on my little ranch today. A trail got overgrown and a creek is getting clogged with debris. And now I'm going as slow as the creek. Bob

Sent from my iPhone

On Feb 28, 2014, at 10:46 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK, I think we're getting close..... (Again!) :-)

Check the voltage on both ends of R90, with and without V10 in the socket.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Ok Gary, here are the measurements for the two emails.
>
> Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.
>
> SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
> TUNE: V9, Pin 1 32.2 V, Pin 6 71V, C107 197.8 V
> Resistance: V10 Pin 7 - 9.9M, reversed leads 5.3M
>
> Test 10. C107 w/ V10 in - 215.7 V
> V9 Pin 6 w/o V10 - 250.6 V
> V9 Pin 6 w/ V10 in - 75.4, immediate drop in V
> That's the latest. Bob
>
>
> Sent from my iPhone
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> Yahoo Groups Links

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> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14
>
>

19045. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-02-28 22:15:20 UTC
From: Garey Barrell
Topic: 18933 Message: 19045

Scott -

Only thing better is to turn off the room lights! :-)

By the way, there is no 'TR-4Cw/RIT Manual'. THE manual is the TR-4CW with a few sheets of addenda. All on my Service
CD, by the way! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 wrote:
> Well after some 43 years I finally own a 4C station. I just bought a gorgeous TR-4CW-RIT and AC-4 power supply. It arrived today and I had the thrill of pulling this beauty out of the box and being blown away by the great condition. It hasn't been often that I've been wow'd by the condition of a radio. I'm listening to 20 meter cw and ssb right now on it. I need to print out the manual to read up on how to tune it so I'll try it out tomorrow night on 20m. I might look for an original TR-4CW-RIT manual as I've always enjoyed having an original manual with a radio. I store the manuals underneath the radios for quick access.
>
> I heard there is a Saturday Drake net on 40m. I'll have to look into that!
>
> I've been curious about the 500 Hz filter and RIT. Looks like the TR-4 will be nice to operate on CW. I could easily zero beat the other station, then use the RIT to slip up the band a bit to put the signal smack dab in the 500 Hz passband. Sweet!
>
> A long time ago, some 43 years ago, I was in the Navy overseas and would look read QST from cover to cover, and I would spent a lot of time dwelling on the Amateur Electronic Supply advertisements showing Ray Grenier sitting at the helm of a fabulous Drake station. I sure dreamed about that station but I wasn't in the right place or right time. Guess 43 years later is the right time and right place :)
>
> Did Drake ever have Drake QSL cards? I remember WRL did, Hammarlund did. Wonder if Drake ever did.
>
> Finally Drake,
> 73, Scott WA9WFA
>
>

19046. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 00:14:00 UTC
From: Steve Wedge
Topic: 1054 Message: 19046

I resemble that remark.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Robert Logan
Sent: Friday, February 28, 2014 5:06 PM
To: DrakeRadio@yahoogroups.com
Cc: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC problem

I can feel it in my bones. Aaallmost there, homing in on the Death Star vent even like and Wedge missed a couple ofttimes.

I really appreciate the help. I want that Drake back on the air!

Will do the check tonight. Had to do some property clearing on my little ranch today. A trail got overgrown and a creek is getting clogged with debris. And now I'm going as slow as the creek. Bob

Sent from my iPhone

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Bob -

OK, I think we're getting close..... (Again!) :-)

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73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Ok Gary, here are the measurements for the two emails.
>
> Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.
>
> SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
> TUNE: V9, Pin 1 32.2 V, Pin 6 71V, C107 197.8 V
> Resistance: V10 Pin 7 - 9.9M, reversed leads 5.3M
>

> Test 10. C107 w/ V10 in - 215.7 V
> V9 Pin 6 w/o V10 - 250.6 V
> V9 Pin 6 w/ V10 in - 75.4, immediate drop in V
> That's the latest. Bob
>
>
> Sent from my iPhone
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
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>
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>
>
> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14
>
>

19047. New to me. 11-tube R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 00:18:03 UTC
From: Steve Wedge
Topic: 19047 Message: 19047

Got a "new" to me 11-tube R-4A in the mail today. Got it cheap off eBay. Yes, you CAN get stuff off eBay for cheap. You must be patient.

The seller said it didn't work. Well, of course, it didn't! The 12AX7 was missing, as was the MUTE shorting plug!

Been listening to 40 SSB, contest, and it's holding its own. Oh, yeah: it came with 10 crystals on the back, and only 2 of them were for Chicken Band.

SCORE!

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19048. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 01:16:18 UTC
From: Robert Logan
Topic: 1054 Message: 19048

Ok Gary, still sitting at my test bench and just put down my DMM leads.

With V10 in, voltages at each end of R90 are 280 and 224.

With V10 out, voltages are 281 and 264, or, 40 v less at one end.

Bob

Sent from my iPhone

On Feb 28, 2014, at 10:46 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK, I think we're getting close..... (Again!) :-)

Check the voltage on both ends of R90, with and without V10 in the socket.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Ok Gary, here are the measurements for the two emails.
>
> Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.
>
> SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
> TUNE: V9, Pin 1 32.2 V, Pin 6 71V, C107 197.8 V
> Resistance: V10 Pin 7 - 9.9M, reversed leads 5.3M
>
> Test 10. C107 w/ V10 in - 215.7 V
> V9 Pin 6 w/o V10 - 250.6 V
> V9 Pin 6 w/ V10 in - 75.4, immediate drop in V
> That's the latest. Bob
>
>
> Sent from my iPhone
>
>
> ------------------------------------
>
> Yahoo Groups Links
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>
>
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> Version: 2014.0.4335 / Virus Database: 3705/7132 - Release Date: 02/28/14
>
>

19049. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 01:18:04 UTC
From: Robert Logan
Topic: 1054 Message: 19049

Ha! Like souls.

Sent from my iPhone

On Feb 28, 2014, at 6:14 PM, "Steve Wedge" <w1es1982@...> wrote:

I resemble that remark.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Robert Logan
Sent: Friday, February 28, 2014 5:06 PM
To: DrakeRadio@yahoogroups.com
Cc: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC problem

I can feel it in my bones. Aaallmost there, homing in on the Death Star vent even like and Wedge missed a couple ofttimes.

I really appreciate the help. I want that Drake back on the air!

Will do the check tonight. Had to do some property clearing on my little ranch today. A trail got overgrown and a creek is getting clogged with debris. And now I'm going as slow as the creek. Bob

Sent from my iPhone

On Feb 28, 2014, at 10:46 AM, Garey Barrell <k4oah@...> wrote:

Bob -

OK, I think we're getting close..... (Again!) :-)

Check the voltage on both ends of R90, with and without V10 in the socket.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Robert Logan wrote:
> Ok Gary, here are the measurements for the two emails.
>

> Test 9. V10 in, SSB and TUNE modes, GAIN minimum, VOX off, Dummy load.
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> SSB mode: V9, Pin 1 33.1 V, Pin 6 75.6 V, C107 210.5 V
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> Test 10. C107 w/ V10 in - 215.7 V
> V9 Pin 6 w/o V10 - 250.6 V
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>
>

19050. Re: [DrakeRadio] New Drake TR-4CW-RIT Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 04:58:44 UTC
From: Whitebear1122
Topic: 18933 Message: 19050

Hey Garey and all, On your advice I turned out the lights. You're right, the TR-4 is a pretty radio in the dark with the blue dial and meters and red indicators. I have to say one of the most amazing radio sights I've experienced is when I fired up my Johnson Viking Valiant with the 866 mercury vapor rectifiers. Wow what a sight when I keyed up and those 866's glowed bright blue like some nuclear reactor hi hi

Tnx for the manual information . Lucky for me the seller included his K4OAH service cd otherwise I'd be buying one from you. I printed out part of the manual this evening to learn how to safely tune up the radio. BTW, there is a big ARRL DX contest going on and I used the new Drake TR-4 to work Hawaii, Spain, and all over South American on 20 meter SSB tonight.

73, Scott WA9WFA

On Feb 28, 2014, at 4:15 PM, Garey Barrell <k4oah@...> wrote:

> Scott -
>
> Only thing better is to turn off the room lights! :-)
>
> By the way, there is no 'TR-4Cw/RIT Manual'. THE manual is the TR-4CW with a few sheets of addenda. All on my Service
> CD, by the way! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

19051. TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 06:09:50 UTC
From: Steve VK2SJA
Topic: 18933 Message: 19051

Hello All,

Here is where I start crying HELP!

Quick back story:- eBay TR-4C "...worked last time I used it. RX was working. Didn't test TX". The usual story. Came without PSU. Sourced AC3 and immediately went to install ES4AC-3 PSU upgrade kit. During installation of PSU upgrade kit found that my AC3 only had a 110VAC transformer (only one primary winding).

Tried to test TR-4C in what I thought was RX mode. With upgraded PSU running from 240 to 110 step-down transformer. No attempt was going to be made to TX as step-down transformer would not be able to supply required TX current. No attempt was made to adjust BIAS.

Result. No audio at all. Fiddled around with controls not really knowing what I was doing (Yes, I do have a manual, and Yes, I did read it prior). Still no audio. After a couple minutes with power applied the fuse 2.5A in the step-down transformer blew. There was a "burst" of RX audio. Not sure if it was before or *after* the fuse blew. Discovered to my horror that the PA cage was very warm to touch. Concluded the radio had gone into TX.

Radio was then given the "Works Clean" (Steve style :-). Yes I now know that many frown upon this practice. Hayseed electrolytic capacitor kit fitted. Lot's of other cosmetic stuff. Complete clean and re-build of PTO. Radio now looks like brand new. Tightened all under chassis screws holding tag-strips and PCB's

Second AC3 sourced. This time transformer has both primary windings. Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded like it was going into saturation at anything much over 220VAC (250VAC 50hz at wall outlet). Modified PSU with step-down auto-transformer so that supplied mains is 221VAC and also threw in a soft-start module.

Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about 75ohms. Replaced them.

(Sorry this is so long).

Today was the big day. Smoke test Number-II ! Same story (grin). Well almost.

Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing for about ten seconds. Then S-Meter starts to move fairly quickly towards FSD. RX audio static heard for a few seconds at this point. The relay then "clicks", audio cuts out, and I assume that I am in TX mode. I turn power off at this point.

I have measured my PSU voltages at the feed-through's under chassis. All my voltages are low because of dropping the mains supply to 221VAC. Here are my voltages under RX load:-

+650Vdc => +632Vdc
+250Vdc => +225Vdc
BIAS => -70.6 to -34Vdc (currently set -70.6)
Heater => 11.25Vac

Are my voltages causing this problem? Any advice *very* gratefully received.

73 Steve
VK2SJA

No audio.
Source 2nd AC3. Upgrade AC3

19052. Replacing T-4XB Meter Cal Resistor

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 06:32:12 UTC
From: Richard Knoppow
Topic: 19052 Message: 19052

I can't find my notes on how to adjust the selected
calibrating resistor for the meter to make it read right.
What voltage and were is it measured?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19053. Re: [DrakeRadio] Replacing T-4XB Meter Cal Resistor

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 06:45:10 UTC
From: L L bahr
Topic: 19052 Message: 19053

Richard:
Garey said put a VOM in line and change calibration resistor to match VOM reading. The meter is not linear so you have to pick a spot you want to be most accurate. My neighbor just did it and set it to be accurate at maximum grid or plate current. However, Garey suggests you set the accuracy at the required bias setting for the finals as this csetting is important to be accurate.

Lee, w0vt

----- Original Message -----

From: "Richard Knoppow" <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, March 1, 2014 12:32:12 AM
Subject: [DrakeRadio] Replacing T-4XB Meter Cal Resistor

I can't find my notes on how to adjust the selected
calibrating resistor for the meter to make it read right.
What voltage and were is it measured?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19054. T4XB: RF control repeak

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 09:04:40 UTC
From: <oz8cth@...>
Topic: 19054 Message: 19054

After 5-10 minutes I need to repeak the RF control on my T4XB to achieve the plate and output readings I had when I first tuned up the transmitter. Is this a normal thing for the T4X?

Thanks.
Peter OZ8CTH

19055. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 12:49:35 UTC
From: <rochep@...>
Topic: 19022 Message: 19055

Was listening with the radio last night after cleaning up, she sounds NICE. I think I have an alignment or other issue with the passband controls; on 4.8 kc and 2.4 kc CW signal is nice and strong, when I switch over to 1.2 kc it almost disappears, much much weaker, and 0.4 kc is even weaker. I am not worried, might be an alignment issue. The fuse in the radio is a 4 amp, THAT'S gotta go! Also PTO dial is OFF; when I slide the little red bar all the way to the left, it is STILL not on "0" when it should be. Might be a set-screw somewhere.

That passband control is wierd, all just adds "whooshiness" to my signal. But I do not have all the alignment tools needs (no decent signal generator, just an old Eico 324 and I have been told that is a horrible one).

p

19056. Nets?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 13:44:50 UTC
From: Whitebear1122
Topic: 19054 Message: 19056

Someone on here mentioned a 40 meter Saturday Drake net. My apology but I misplaced the email. Is there a 40 m SSB net? Tnx, 73, Scott WA9WFA

19057. Re: [DrakeRadio] Nets?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 13:52:41 UTC
From: Chgypsy@...
Topic: 19054 Message: 19057

Scott,
Don't know about Saturday but there is a Sunday Tech assistance net for Drake on 7238 +/- that I believe is now 4 PM. EST Look for a prenet about 1/2 hour prior. Tues has an equipment swap 3.865 at 8 PM as I recall. Also there is a third on Wednesday at 8 PM on 80M but not strictly Drake.

whitebear1122@... writes:

Someone on here mentioned a 40 meter Saturday Drake net. My apology but I misplaced the email. Is there a 40 m SSB net? Tnx, 73, Scott WA9WFA

19058. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 13:55:43 UTC
From: Dieter Horst
Topic: 18936 Message: 19058

The filter itself might have an issue.

When I bought my TR7 it had an intermittent 2.3 kHz filter. It was a strange effect of sometimes being deaf but not too severe.
I opened the filter, resoldered all joints and it has been fine all the time now.

Just one test you could do. With the handle of a screwdriver gently knock on the filter and see what happens.

Of course, check the diodes first. That is an easy job.

73s, Dieter DL5RDO

Am 28.02.2014 03:54, schrieb Garey Barrell:
>
> True, but at this point were looking for an open or shorted PIN diode.
> Easy to check with a DMM, especially if it has a
> diode test range. (Diode symbol on range switch.) Also be sure and
> check the -5 VDC supply. (Typically -3.5 VDC)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> w9dz@... wrote:
> >
> >
> > Calibrator signal is essentially the same through all the filters
> (6.0, 1.8 and 300Hz) with the exception of the
> > standard SSB filter.
> >
> > After transmitting for a bit yesterday I thought the problem had
> corrected itself but it's back this evening.
> >
> > The reason I asked about testing the PIN diodes was prompted by some
> Google searches and remarks from folks who said
> > it required passing RF through the diode and application of DC bias.
> I'll take a look with my DVM and see what it
> > shows. No, I don't have extender boards. I do have the service
> manual so I shouldn't have a problem locating the
> > correct diodes.
> >

> > Thanks.
> >
> >
> >
> >
> >
> >
> > No virus found in this message.
> > Checked by AVG - www.avg.com <http://www.avg.com>
> > Version: 2014.0.4335 / Virus Database: 3705/7130 - Release Date:
> 02/27/14
> >
>
>

19059. Re: [DrakeRadio] Nets?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 14:15:33 UTC
From: Evan Rolek
Topic: 19054 Message: 19059

Not to my knowledge. There is a Kenwood Hybrid Net on Saturday though.

-----Original Message-----
From: Whitebear1122 <whitebear1122@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sat, Mar 1, 2014 8:44 am
Subject: [DrakeRadio] Nets?

Someone on here mentioned a 40 meter Saturday Drake net. My apology but I misplaced the email. Is there a 40 m SSB net? Tnx, 73, Scott WA9WFA

19060. Re: [DrakeRadio] Nets?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 14:21:27 UTC
From: Bernie Roche
Topic: 19054 Message: 19060

Dear Scott:

Here's a copy of the previous msg.:

Mark Gilger mgilger@...
via<http://support.google.com/mail/bin/answer.py?hl=en&answer=1311182&ctx=mail>
yahoogroups.com
Jan 6
Reply
to drakeradio

Since the 40 meter technical net was created many years ago, the
Sunday start time has always 20:00 GMT . Due to recent problems with
broadcast station interference, we have decided to move the net to a
new time of 4 pm Eastern. This will take effect this coming Sunday,
January 12th.

Moving the net has been a regular discussion point every winter for
several years now, but no action was ever taken. This year the signal
strength of the interfering station has been so strong, we felt it
was needed to keep the net healthy. Please make the new times on your
calendar and we hope to hear everyone this coming Sunday at the new time.

The Tuesday evening net remains unchanged and will remain on Tuesday
at 8:00 PM on 3.865 mhz.

Sunday @ 4:00 PM Eastern on 7.238 mhz +/- QRM
Tuesday @ 8:00 PM Eastern on 3.865 mhz +/- QRM

73's,
Mark, WB0IQK

I hope this helps...

On Sat, Mar 1, 2014 at 8:52 AM, <Chgypsy@...> wrote:

>
>
> Scott,
> Don't know about Saturday but there is a Sunday Tech assistance net for
> Drake on 7238 +/- that I believe is now 4 PM. EST Look for a prenet about
> 1/2 hour prior. Tues has an equipment swap 3.865 at 8 PM as I recall.
> Also there is a third on Wednesday at 8 PM on 80M but not strictly Drake.
>
> whitebear1122@... writes:
>
> Someone on here mentioned a 40 meter Saturday Drake net. My apology but I

> misplaced the email. Is there a 40 m SSB net? Tnx, 73, Scott WA9WFA
>
>
>

--

Best Wishes,

Bernie Roche, CEC
VE3OTR / VA3OTR
Peel ARC ARES
Accredited Examiner, Industry Canada
Canwarn Radio Net Controller
CITIG member

(416) 435-0423 cell
VE3OTR@...

Communicare, Resolvere, Perficere
We Communicate, We Complete, WE GET THINGS DONE

19061. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 14:47:01 UTC
From: Garey Barrell
Topic: 18933 Message: 19061

Steve -

Your PS voltages don't look out of reason.

First, the relay is turned OFF by the BIAS supply, and ON by rectified AF, either from voice or SIDETONE, depending upon
MODE. So having the relay kick in without provocation usually indicates a low or loss of BIAS voltage. Same for a 'hot
PA' area, although the PA does get pretty warm just from the three big filaments. With your BIAS set at -70 VDC, the PA
stage should be cut off, even if the relay DOES kick in. Typical operating 'idle' voltage is about -62 VDC.

The '10 second' delay is the tube warm-up delay, which is typically specified as 11 seconds.

So. First thing I would do is set the BIAS as far negative as it will go. Should go to around -85 to -90 VDC. Double
check ALL the tubes to ensure that each one is in the right socket! Then pull the 6EV7 (V19). This will allow you to
work on just the receiver and find out if it's ok.

One word of advice, (too late,) if you insist on drowning a radio, verify its operation BEFORE.

Let us know what happens!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hello All,
>
> Here is where I start crying HELP!
>
> Quick back story:- eBay TR-4C "...worked last time I used it. RX was
> working. Didn't test TX". The usual story. Came without PSU. Sourced AC3
> and immediately went to install ES4AC-3 PSU upgrade kit. During
> installation of PSU upgrade kit found that my AC3 only had a 110VAC
> transformer (only one primary winding).
>
> Tried to test TR-4C in what I thought was RX mode. With upgraded PSU
> running from 240 to 110 step-down transformer. No attempt was going to be

> made to TX as step-down transformer would not be able to supply required
> TX current. No attempt was made to adjust BIAS.
>
> Result. No audio at all. Fiddled around with controls not really knowing
> what I was doing (Yes, I do have a manual, and Yes, I did read it prior).
> Still no audio. After a couple minutes with power applied the fuse 2.5A in
> the step-down transformer blew. There was a "burst" of RX audio. Not sure
> if it was before or *after* the fuse blew. Discovered to my horror that
> the PA cage was very warm to touch. Concluded the radio had gone into TX.
>
> Radio was then given the "Works Clean" (Steve style :-). Yes I now know
> that many frown upon this practice. Hayseed electrolytic capacitor kit
> fitted. Lot's of other cosmetic stuff. Complete clean and re-build of PTO.
> Radio now looks like brand new. Tightened all under chassis screws holding
> tag-strips and PCB's
>
> Second AC3 sourced. This time transformer has both primary windings.
> Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded like
> it was going into saturation at anything much over 220VAC (250VAC 50hz at
> wall outlet). Modified PSU with step-down auto-transformer so that
> supplied mains is 221VAC and also threw in a soft-start module.
>
> Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about
> 75ohms. Replaced them.
>
> (Sorry this is so long).
>
> Today was the big day. Smoke test Number-II ! Same story (grin). Well almost.
>
> Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing
> for about ten seconds. Then S-Meter starts to move fairly quickly towards
> FSD. RX audio static heard for a few seconds at this point. The relay then
> "clicks", audio cuts out, and I assume that I am in TX mode. I turn power
> off at this point.
>
> I have measured my PSU voltages at the feed-through's under chassis. All
> my voltages are low because of dropping the mains supply to 221VAC. Here
> are my voltages under RX load:-
>
> +650Vdc => +632Vdc
> +250Vdc => +225Vdc
> BIAS => -70.6 to -34Vdc (currently set -70.6)
> Heater => 11.25Vac
>
> Are my voltages causing this problem? Any advice *very* gratefully received.
>
> 73 Steve
> VK2SJA
>
>

19062. Re: [DrakeRadio] T4XB: RF control repeak

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 14:52:33 UTC
From: Garey Barrell
Topic: 19054 Message: 19062

Peter -

Probably. I can't say that I've ever noticed it, but I wouldn't have paid much attention if I did! :-)

This is 'tube/valve' gear, and it gets hot. Makes sense that going from room temperature to hot would cause resonant
circuit elements to change value, requiring a minor touch-up once full operating temperature is reached.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

oz8cth@... wrote:
>
>
> After 5-10 minutes I need to repeak the RF control on my T4XB to achieve the plate and output readings I had when I
> first tuned up the transmitter. Is this a normal thing for the T4X?
>
> Thanks.
> Peter OZ8CTH
>

19063. Need two Zener diodes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 15:16:08 UTC
From: Joe W2KJ
Topic: 19063 Message: 19063

Howdy Gang:

I need two 5.6V, 5W Zener diodes for a project of mine.

Glad to pay for the cost of the Zeners and postage.

Many thanks for any assistance.

73, Joe W2KJ

19064. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 15:20:19 UTC
From: Garey Barrell
Topic: 19022 Message: 19064

Paul -

Absolutely first move is get the proper fuse in there!! It's a 0.75A Slo-Blo, accept no substitutes!

You can 'touch up' the Passband Tuner without a generator. Assume the BFO is on frequency, which is a reasonable
assumption unless someone has been 'fixing' it. Then follow the PB Tuner alignment instructions in Section VII, para.
'I' in the manual. Not rocket science, and you're not going to hurt anything. The S-Meter works fine as an indicator,
use AVC FAST for best response. In fact, you can do a complete 'field alignment' without anything other than the
Calibrator and S-Meter. Without a good generator, skip Para. C and D

There are three 'adjustments' for the PTO/dial setup. Start by setting the dial window so the red line is on the
fiducial marks on the panel. Then hold the MAIN TUNING knob skirt and turn the knob so that the '0' on the skirt is on
the fiducial at zerobeat of the Calibrator. Next hold the dial disk tightly and turn the MAIN TUNING until you get the
'0' on the dial exactly under the red line when the knob skirt indicates '0'. The disk has a friction clutch and WILL
slip, but can be a bit difficult to get moving when it's been in one spot for 40 years.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Was listening with the radio last night after cleaning up, she sounds NICE. I think I have an alignment or other issue
> with the passband controls; on 4.8 kc and 2.4 kc CW signal is nice and strong, when I switch over to 1.2 kc it almost
> disappears, much much weaker, and 0.4 kc is even weaker. I am not worried, might be an alignment issue. The fuse in
> the radio is a 4 amp, THAT'S gotta go! Also PTO dial is OFF; when I slide the little red bar all the way to the left,
> it is STILL not on "0" when it should be. Might be a set-screw somewhere.
>
> That passband control is wierd, all just adds "whooshiness" to my signal. But I do not

have all the alignment tools
> needs (no decent signal generator, just an old Eico 324 and I have been told that is a horrible one).
>

19065. Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 15:35:53 UTC
From: John Lawrence
Topic: 19065 Message: 19065

I was thinking of getting an external digital display for My TR-3.
Before the purists of the group begin to jump all over me, my older eyes are not what they used to be. I need a little help to read the analog dial. I seem to to better with the digital displays on my VHF and UHF equipment.

I was looking at these http://www.electronicspecialtyproducts.com/
Does anyone have experience or knowledge of these?
I have an RV-4C and I'd like to keep this connected as well if I use the DD-103.

Does anyone have a used one for sale?

Thanks!

--
John NE3E

19066. T-4X "Asheville" - progress.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 15:48:12 UTC
From: Steve Wedge
Topic: 19066 Message: 19066

I was getting frustrated with trying to get output on 40m. When I replaced the 12BY7, I had no output at all (the driver was weak, so I've left the new one in) on 40m. After checking the values of each trimmer/fixed cap combination and comparing against another T-4X (and finding them okay but not the same in value, which makes sense), I decided I could get in the ballpark by putting the scope probe on the buss wire at the driver output and peaking each of the 4 trimmers in succession.

I put the scope probe there, set the scope for 20V/div, AC-coupled. This was sufficient so see an RF envelope with a fairly slow sweep rate (100 us/div) and peak the trimmers. Because the scope is much more sensitive to "seeing" the peaking of the RF, I was able to get full output on 40m in about 3 minutes.

If you have a transmitter that seems to defy your attempts to get output on a single band, you may want to try this procedure. Be sure to re-peak with the probe removed, as there is a small amount of capacitive loading in the probe itself.

I hope to have this set on for the net tomorrow so I can get some audio reports - assuming I'm not out showing houses

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

19067. Re: [DrakeRadio] Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 16:00:07 UTC
From: Garey Barrell
Topic: 19065 Message: 19067

John -

I'm not familiar with the DD-103, but it seems to be pretty popular. The company has other products and has been around
for quite a few years.

It should be able to use the 'tube shield' coupling method.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Lawrence wrote:
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> Does anyone have a used one for sale?
>
> Thanks!
>

19068. Re: [DrakeRadio] Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 16:02:13 UTC
From: Doug
Topic: 19065 Message: 19068

There are a couple that attach to the remote VFO JACK on the radio. I don't know the models off the top of my head but google digital dial and you will find a number of responses.

Sent from my iPhone

> On Mar 1, 2014, at 11:00, Garey Barrell <k4oah@...> wrote:
>
> John -
>
> I'm not familiar with the DD-103, but it seems to be pretty popular. The company has other products and has been around
> for quite a few years.
>
> It should be able to use the 'tube shield' coupling method.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >
> > Does anyone have a used one for sale?
> >
> > Thanks!
> >
>
>

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19069. How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 16:18:54 UTC
From: <rochep@...>
Topic: 19069 Message: 19069

I am getting some slipping of my preselector. I was wanting to take it apart and look at it, the ball bearings. I loosened the two screws on the "shaft", but what do I do now? Does that ball-bearing holder/vernier thing slide off? How do I get the shaft out of the front?

paul

19070. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 16:19:56 UTC
From: Robert Logan
Topic: 1054 Message: 19070

Gary, I should have said 'or 40v less with V10 in.'

Bob

Sent from my iPhone

19071. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 16:53:18 UTC
From: Garey Barrell
Topic: 1054 Message: 19071

Bob -

I'm running out of ideas.... I do not see any explanation for the purely mechanical plugging in of V10, (you say that
when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning before any current is drawn by V10,)
can affect the voltage on C107. I can't see any internal short paths through a defective V10 that could 'load' the
circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find any 'intentional' electrical
path to support that.

It may be time to connect a meter to C107, and then probe with an INSULATED 'stick' around any wiring that might be
associated with the socket for V10 while watching for meter movement. Inserting a tube in the socket does 'stiffen' the
socket tags, possibly creating a path through adjacent wires. I realize it's a desperate move, but I just can't see
anything intentional 'electrically' that could cause this.

73, Garey - K4OAH
Glen Allen, VA

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Robert Logan wrote:
> Gary, I should have said 'or 40v less with V10 in.'
>
> Bob
>
>

19072. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:12:03 UTC
From: Garey Barrell
Topic: 19069 Message: 19072

Paul -

Steve is our vernier expert!.. I seem to recall you have to remove the slug rack to get it OUT of the radio.

There is a 'fix' for certain conditions that consists of a spacer to force the smaller, center shaft further forward to
allow the balls to ride 'outside' the groove. It's on my CDs, and I'll send you the file.

The vernier assembly itself is 'crimped' together, and not designed to be 'repaired'.

73, Garey - K4OAH
Glen Allen, VA

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rochep@... wrote:
>
>
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> loosened the two screws on the "shaft", but what do I do now? Does that ball-bearing holder/vernier thing slide off?
> How do I get the shaft out of the front?
>
> paul
>
>

19073. RE: How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:28:08 UTC
From: <rochep@...>
Topic: 19069 Message: 19073

HaHa. I have heard enough!! I am putting it back together, it is not too bad and the last thing I want to do is break something. The dial tracking trick worked, I did hear some sort of "click", when holding the gear thing, but now it is tracking perfectly. I tweaked the passband, but I think I need to work on it a bit more. Not really sure what I am listening for. I will get the CD, this chassis is in beautiful condition (for only $150) and the radio is small enough for my BA station (replaces my HQ-170A). Thanks for all the help, I am very happy with the radio. Now gotta change those filter caps.

p

19074. Re: Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:37:39 UTC
From: LAWRENCE MATHESON
Topic: 19065 Message: 19074

I have one I use with my TR 4 and it works well. Just plugs into the remote VFO jack on the bottom of the rig.

Lawrence

19075. Re: [DrakeRadio] RE: How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:42:20 UTC
From: Garey Barrell
Topic: 19069 Message: 19075

Paul -

The subjective 'sound' of the PB Tuner is an acquired skill. After you listen to a few dozen of them it becomes pretty
clear!! :-)

You should be able to get close by doing the following.

Rotate the Passband knob until the slugs are at their maximum travel 'out' of the box. The knob should be pointing
toward the S-Meter. Then tune in the Calibrator for zerobeat, set the Passband knob to the center of the 400 Hz line,
(between the dots,) and peak all four slugs for maximum on the S-Meter. It helps to switch to FAST AVC, and detune the
PreSelector so that the signal peaks around S-9.

That should get you very close, unless someone has been 'fixing' on it! ('Fixers' are the bane of our existence!) :-)

The dots on either end are USB and LSB, and the center between them is zerobeat. So if you tune in a CW signal for a
tone you like, you should be able to turn the PB control to one dot or the other to peak the audio (and S-Meter) level.

73, Garey - K4OAH
Glen Allen, VA

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rochep@... wrote:
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> something. The dial tracking trick worked, I did hear some sort of "click", when holding the gear thing, but now it is
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> listening for. I will get the CD, this chassis is in beautiful condition (for only $150) and the radio is small enough
> for my BA station (replaces my HQ-170A). Thanks for all the help, I am very happy with the radio. Now gotta change
> those filter caps.
>

19076. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:46:12 UTC
From: Steve Wedge
Topic: 18933 Message: 19076

Steve, try pulling the 6EV7 (V19) so that the rig shouldn't key and see if it can receive.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve VK2SJA
Sent: Saturday, March 01, 2014 1:09 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4C keeps going to TX

Hello All,

Here is where I start crying HELP!

Quick back story:- eBay TR-4C "...worked last time I used it. RX was working. Didn't test TX". The usual story. Came without PSU. Sourced AC3 and immediately went to install ES4AC-3 PSU upgrade kit. During installation of PSU upgrade kit found that my AC3 only had a 110VAC transformer (only one primary winding).

Tried to test TR-4C in what I thought was RX mode. With upgraded PSU running from 240 to 110 step-down transformer. No attempt was going to be made to TX as step-down transformer would not be able to supply required TX current. No attempt was made to adjust BIAS.

Result. No audio at all. Fiddled around with controls not really knowing what I was doing (Yes, I do have a manual, and Yes, I did read it prior). Still no audio. After a couple minutes with power applied the fuse 2.5A in the step-down transformer blew. There was a "burst" of RX audio. Not sure if it was before or *after* the fuse blew. Discovered to my horror that the PA cage was very warm to touch. Concluded the radio had gone into TX.

Radio was then given the "Works Clean" (Steve style :-). Yes I now know that many frown upon this practice. Hayseed electrolytic capacitor kit fitted. Lot's of other cosmetic stuff. Complete clean and re-build of PTO. Radio now looks like brand new. Tightened all under chassis screws holding tag-strips and PCB's

Second AC3 sourced. This time transformer has both primary windings. Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded like it was going into saturation at anything much over 220VAC (250VAC 50hz at wall outlet). Modified PSU with step-down auto-transformer so that supplied mains is 221VAC and also threw in a soft-start module.

Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about 75ohms. Replaced them.

(Sorry this is so long).

Today was the big day. Smoke test Number-II ! Same story (grin). Well almost.

Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing for about ten seconds. Then S-Meter starts to move fairly quickly towards FSD. RX audio static heard for a few seconds at this point. The relay then "clicks", audio cuts out, and I assume that I am in TX mode. I turn power off at this point.

I have measured my PSU voltages at the feed-through's under chassis. All my voltages are low because of dropping the mains supply to 221VAC. Here are my voltages under RX load:-

+650Vdc => +632Vdc
+250Vdc => +225Vdc
BIAS => -70.6 to -34Vdc (currently set -70.6)
Heater => 11.25Vac

Are my voltages causing this problem? Any advice *very* gratefully received.

73 Steve
VK2SJA

No audio.
Source 2nd AC3. Upgrade AC3

19077. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 17:57:04 UTC
From: VE3AX/7
Topic: 19069 Message: 19077

Paul:

While no expert, I did just recently successfully repaired a worn Preselector shaft for the first time.

Like you, I had some trouble figuring out how to remove the front part of the shaft. This worked for me:

REMOVE the two setscrews – just loosening did not seem to work. They have very shallow threads and will fall out easily anyways once loosened. CAREFULLY store them away and don't drop them or you'll never see them again!.

Taking a hefty pair of needle nose pliers, aggressively wiggle the vernier housing back and forth while pushing it towards the front of the radio. Eventually a ball bearing or two fell out. The shaft easily pulled out at that point.

The machined end of the shaft looks like 3/4 of an hourglass, with a shallower "slope" on the rear end. There was a groove worn by the ball bearings on that shallow slope. When I received this radio, the shaft would turn but the vernier was frozen solid so there was no speed reduction. I suspect that's why it was worn badly. Moral of the story – if your preselector is frozen up, degrease and re-grease right away!

I had a machinist duplicate the shaft out of a 1/4" drill bit – not easy to machine – but he left the machined part slightly larger than the original. I then used a file and emery to take the machined end down until it would pop into place between all 4 bearings which were placed in the housing (pre-grease to help hold them in). This took quite a while but was very successful. Yes, the bearings fell out a few times during this process, but eventually everything "fell" into place, admittedly with a pretty good shove.

So – that's what worked for me. YMMV!

73
Peter
VE3AX/7

From: Garey Barrell
Sent: Saturday, March 01, 2014 9:12 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

Paul -

Steve is our vernier expert!.. I seem to recall you have to remove the slug rack to get it OUT of the radio.

There is a 'fix' for certain conditions that consists of a spacer to force the smaller, center shaft further forward to
allow the balls to ride 'outside' the groove. It's on my CDs, and I'll send you the file.

The vernier assembly itself is 'crimped' together, and not designed to be 'repaired'.

73, Garey - K4OAH
Glen Allen, VA

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> How do I get the shaft out of the front?
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> paul
>
>

19078. Re: [DrakeRadio] Need two Zener diodes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 18:01:28 UTC
From: William Houghton
Topic: 19063 Message: 19078

Try Anchor Electronics, a local store here.

http://anchor-electronics.com/

40 cents each and they will ship.

73,

Bill, WA6NEQ

From: Joe W2KJ <jotrom@...>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, March 1, 2014 7:16 AM
Subject: [DrakeRadio] Need two Zener diodes

Howdy Gang:

I need two 5.6V, 5W Zener diodes for a project of mine.

Glad to pay for the cost of the Zeners and postage.

Many thanks for any assistance.

73, Joe W2KJ

19079. Re: [DrakeRadio] Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 18:13:19 UTC
From: John Lawrence
Topic: 19065 Message: 19079

Thanks guys!

I thought I was going to have to duck from sticks and stones thrown my way because I want to add a modern counter to the 1963 vintage TR-3. This rig is only 10 years younger than me!
HI HI!

On Sat, Mar 1, 2014 at 11:00 AM, Garey Barrell <k4oah@...> wrote:

>
>
> John -
>
> I'm not familiar with the DD-103, but it seems to be pretty popular. The
> company has other products and has been around
> for quite a few years.
>
> It should be able to use the 'tube shield' coupling method.
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> DD-103.
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> > Thanks!
> >

>
>
>

--
John

19080. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 18:15:30 UTC
From: Robert Logan
Topic: 1054 Message: 19080

Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to V10, then it must be physical and outside the box.

Thanks for all your help and advice. It's been very informative for me. Cheers. Bob

Sent from my iPhone

On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@...> wrote:

Bob -

I'm running out of ideas.... I do not see any explanation for the purely mechanical plugging in of V10, (you say that
when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning before any current is drawn by V10,)
can affect the voltage on C107. I can't see any internal short paths through a defective V10 that could 'load' the
circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find any 'intentional' electrical
path to support that.

It may be time to connect a meter to C107, and then probe with an INSULATED 'stick' around any wiring that might be
associated with the socket for V10 while watching for meter movement. Inserting a tube in the socket does 'stiffen' the
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anything intentional 'electrically' that could cause this.

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Glen Allen, VA

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Robert Logan wrote:
> Gary, I should have said 'or 40v less with V10 in.'
>
> Bob
>
>

19081. Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 18:20:48 UTC
From: Brenton Crowhurst
Topic: 18777 Message: 19081

I used to approach the Floorth Dimension in a quasi-scientific way, as a teenager. When I dropped something and couldn't find it, I'd go back to where I was when I dropped it, face the same way, and drop another of the same object -- watching carefully where it went. Surprisingly, this led to a number of finds, but I now realize my "second drop" method wasn't retrieving things from the Floorth Dimension at all -- It was merely helping to find things that bounce off it.

We all know what happens when things truly go into the Floorth Dimension -- who can deny being baffled by it? Like when things lost in the ham shack that turn up, impossibly, in the wife's sewing room and the like. Or worse, "re appear" in plain sight where you wouldn't have missed them had they been there just a moment before, like right in front of the radio!

I hope that helps further the discussion of this important topic.

And to tie it back to Drake . . . where the heck did I put my R7A?

Brenton Crowhurst, VE6IE
In Calgary, AB

On Feb 23, 2014, at 7:51 AM, Bernie <barcand@...> wrote:

> □
>
> For what it's worth, my wife, a former English & Literature teacher, doubled over laughing when I explain this to her. She says that "the flooth dimension should become has popular and the renaming of the pound sign into 'hashtag', becuase the 'floorth dimension' makes much more sense!!"
> I concur!! Especially when a small screw is dropped on shag carpet and not even a high-strength magnet can ferret it out.
>
> Bernie in ND
> WDØGMD
>
> ----- Original Message -----
> From: Richard Knoppow
> To: DrakeRadio@yahoogroups.com
> Sent: Sunday, February 23, 2014 12:33 AM
> Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the troubles I get myself into
>
>
>
> ----- Original Message -----
> From: <vacuuminded2@...>
> To: <DrakeRadio@yahoogroups.com>

> Sent: Saturday, February 22, 2014 8:21 PM
> Subject: Re: [DrakeRadio] Drake SPR-4 hamfest fine... oh the
> troubles I get myself into
>
> I keep going back and forth between the two spellings.. I
> think you are right though, Richard... "The Floorth
> Dimension" it is!
> There is a pun hiding here...
> I think there are several parallel dimentions: the one
> partly occupied by cats; the one things vanish into when
> dropped off the table (I have seen them fade away as the
> fell); the one reported on by TV news. Actually _nothing_
> ever happens, it's all made up by the boys in the back room.
> If they told you that nothing was happening you would have
> to turn off your TV and go outside (except in the north-east
> where entropy is increasing very rapidly).
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>
>
>

19082. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 18:36:58 UTC
From: VE3AX/7
Topic: 19069 Message: 19082

Grrrrr....Why do I always see the typos AFTER I hit the SEND button????

That's ......
While no expert, I did just recently successfully repair a worn Preselector shaft for the first time.

Or better yet...
While no expert, I recently successfully repaired a worn.......

73
Peter
VE3AX/7

From: VE3AX/7
Sent: Saturday, March 01, 2014 9:57 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

Paul:

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Like you, I had some trouble figuring out how to remove the front part of the shaft. This worked for me:

REMOVE the two setscrews – just loosening did not seem to work. They have very shallow threads and will fall out easily anyways once loosened. CAREFULLY store them away and don't drop them or you'll never see them again!.

Taking a hefty pair of needle nose pliers, aggressively wiggle the vernier housing back and forth while pushing it towards the front of the radio. Eventually a ball bearing or two fell out. The shaft easily pulled out at that point.

The machined end of the shaft looks like 3/4 of an hourglass, with a shallower "slope" on the rear end. There was a groove worn by the ball bearings on that shallow slope. When I received this radio, the shaft would turn but the vernier was frozen solid so there was no speed reduction. I suspect that's why it was worn badly. Moral of the story – if your preselector is frozen up, degrease and re-grease right away!

I had a machinist duplicate the shaft out of a 1/4" drill bit – not easy to machine – but he left the machined part slightly larger than the original. I then used a file and emery to take the machined end down until it would pop into place between all 4 bearings which were placed in the housing (pre-grease to help hold them in). This took quite a while but was very successful. Yes, the bearings fell out a few times during this process, but eventually everything "fell" into place, admittedly with a pretty good shove.

So – that's what worked for me. YMMV!

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Peter
VE3AX/7

From: Garey Barrell
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To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

Paul -

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Glen Allen, VA

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rochep@... wrote:
>
>
> I am getting some slipping of my preselector. I was wanting to take it apart and look at it, the ball bearings. I
> loosened the two screws on the "shaft", but what do I do now? Does that ball-bearing holder/vernier thing slide off?
> How do I get the shaft out of the front?
>
> paul
>
>

19083. Re: [DrakeRadio] Re: Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:09:31 UTC
From: Garey Barrell
Topic: 19065 Message: 19083

That's what I was afraid of. Unfortunately, that's also where the RV-4C plugs in, and the Cinch connectors don't work
well with 'Y' adapters!

If the tube shield method doesn't work, John will have to add a pigtail with an RCA jack out of the back of his RV-4C
connector to tap onto the PTO signal.

Seems like it would be easiest to use the 'tube shield' method to slip over the Cathode Follower V3.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

LAWRENCE MATHESON wrote:
> I have one I use with my TR 4 and it works well. Just plugs into the
> remote VFO jack on the bottom of the rig.
>
>

19084. Re: [DrakeRadio] Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:15:43 UTC
From: Garey Barrell
Topic: 19065 Message: 19084

John -

I'm probably the biggest 'sticks and stones' guy on here!!! But I have absolutely no problem with an accommodation to
make it easier for someone to use the radio. My problem is with the arguments over 'who's on first', or who is 'on
frequency' +/- 1 Hz, when NONE of the combatants is actually ON that frequency!! Second is the 'everybody has to be on
a '5 kHz' mark!' WE are NOT channelized..... These are both artifacts of 'digital dials'!

Rant off, and ...

Welcome to the group, John! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Lawrence wrote:
>
>
> Thanks guys!
>
> I thought I was going to have to duck from sticks and stones thrown my way because I want to add a modern counter to
> the 1963 vintage TR-3. This rig is only 10 years younger than me!
> HI HI!
>
>
> On Sat, Mar 1, 2014 at 11:00 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> John -
>
> I'm not familiar with the DD-103, but it seems to be pretty popular. The company has other products and has been
> around
> for quite a few years.
>
> It should be able to use the 'tube shield' coupling method.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
>
>
> John Lawrence wrote:
> >
> >
> >
> > I was thinking of getting an external digital display for My TR-3.
> > Before the purists of the group begin to jump all over me, my older eyes are not what they used to be. I need a
> > little help to read the analog dial. I seem to to better with the digital displays on my VHF and UHF equipment.
> >
> > I was looking at these http://www.electronicspecialtyproducts.com/
> > Does anyone have experience or knowledge of these?
> > I have an RV-4C and I'd like to keep this connected as well if I use the DD-103.
> >
> > Does anyone have a used one for sale?
> >
> > Thanks!
> >
>
>
>
>
> --
> John
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7137 - Release Date: 03/01/14
>

19085. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:32:48 UTC
From: Garey Barrell
Topic: 1054 Message: 19085

Bob -

Don't give up, I'm not!! :-) I just think this is the next 'elimination' step, since we can't find anything 'electrical'.

Keep me posted!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to
> V10, then it must be physical and outside the box.
>
> Thanks for all your help and advice. It's been very informative for me. Cheers. Bob
>
> Sent from my iPhone
>
> On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Bob -
>
> I'm running out of ideas.... I do not see any explanation for the purely mechanical plugging in of V10, (you say that
> when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning before any current is drawn by V10,)
> can affect the voltage on C107. I can't see any internal short paths through a defective V10 that could 'load' the
> circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find any 'intentional' electrical
> path to support that.
>
> It may be time to connect a meter to C107, and then probe with an INSULATED 'stick' around any wiring that might be
> associated with the socket for V10 while watching for meter movement. Inserting a tube in the socket does 'stiffen' the
> socket tags, possibly creating a path through adjacent wires. I realize it's a desperate move, but I just can't see
> anything intentional 'electrically' that could cause this.

>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> > Gary, I should have said 'or 40v less with V10 in.'
> >
> > Bob
> >
>

19086. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:35:24 UTC
From: Garey Barrell
Topic: 19069 Message: 19086

I was 'this close' to dispatching the 'Grammar Police' after you.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

VE3AX/7 wrote:
>
>
> Grrrrr....Why do I always see the typos AFTER I hit the SEND button????
> That’s ......
> While no expert, I did just recently successfully repair a worn Preselector shaft for the first time.
> Or better yet...
> While no expert, I recently successfully repaired a worn.......
> 73
> Peter
> VE3AX/7
>

19087. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:41:20 UTC
From: <w5rkl@...>
Topic: 19069 Message: 19087

The FILES section has some pictures where the vernier was replaced with a Jackson Drive. If one the same way the author of the pictures did it, you won't know the Jackson drive is there. Looks very nice. I have not tried that but it does appear to be an alternative to machining new vernier inner shafts.

73
Mike W5RKL

19088. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 19:42:05 UTC
From: <w5rkl@...>
Topic: 19069 Message: 19088

That should say "The Photos" section. Sorry about that.

73
Mike W5RKL

19089. Re: [DrakeRadio] RE: How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 20:03:01 UTC
From: Richard Knoppow
Topic: 19069 Message: 19089

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 01, 2014 9:42 AM
Subject: Re: [DrakeRadio] RE: How to remove pre-selector knob

> Paul -
>
> The subjective 'sound' of the PB Tuner is an acquired
> skill. After you listen to a few dozen of them it becomes
> pretty
> clear!! :-)
>
> You should be able to get close by doing the following.
>
> Rotate the Passband knob until the slugs are at their
> maximum travel 'out' of the box. The knob should be
> pointing
> toward the S-Meter. Then tune in the Calibrator for
> zerobeat, set the Passband knob to the center of the 400
> Hz line,
> (between the dots,) and peak all four slugs for maximum on
> the S-Meter. It helps to switch to FAST AVC, and detune
> the
> PreSelector so that the signal peaks around S-9.
>
> That should get you very close, unless someone has been
> 'fixing' on it! ('Fixers' are the bane of our
> existence!) :-)
>
> The dots on either end are USB and LSB, and the center
> between them is zerobeat. So if you tune in a CW signal
> for a
> tone you like, you should be able to turn the PB control
> to one dot or the other to peak the audio (and S-Meter)
> level.
>
> 73, Garey - K4OAH
> Glen Allen, VA

My hearing is quite poor but I can still find where
there is a similar pitch. Here are a couple of suggestions:
First, the best tool I've found for adjusting the slug rods
is an alligator clip. Clip it to the end of the rod. It has

enough grip to turn the slug easily and will not push or pull on it as most tweekers do. When you get it where you want it just release the clip. I get no backlash or other problems this way.
If you follow the handbook you will be OK but read carefully. When starting the knob must be centered in the slug travel. You can see the slugs at the back of the tuner. Peak all the slugs with the selectivity switch at 400 hz. Even though they should not interact I go over them a couple of times to make sure. Now, if you look at the selectivity chart in the handbook you will find that the filter does not expand symmetrically. That is why the dots and lines are not centered. After tuning up at 400 hz set the filter for 2400 hz and see what the pitch of the noise is at the ends of travel. It will NOT be the same. Adjust the knob for the center of the noise (i.e. lowest pitch) and loosen the set screws, now move the knob to the center of the 2400 hz line. Now check again to see if the pitch is the same at the dots at the ends of the line. If its slightly off adjust the knob position on the shaft again until its the same. If you can not get the same pitch go back to the beginning and re-peak at 400 hz. In my experience the peaking is quite critical. the pitch will never be exactly the same because the pass band skirts are not quite symmetrical but it should be very close. check at other bandwidths, the lowest pitch should be about in the center of each line and the pitch at the dots at the ends should be quite close.
Another suggestion; I've found that the tuning does drift a bit with temperature, not a lot but enough so that if you peak it when the set is cold it will not be quite right after it warms up fully. Let it run for perhaps half an hour before tuning it. The tuning after warm up does not seem to change significantly.
While the tuner is not as sharp as a mechanical or crystal filter its pretty good. The 400 hz position is better than the 400 hz crystal position on my RCA AR-88. The ability to shift the pass band around somewhat compensates for the lack of really sharp skirts as does the very good notch filter.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19090. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 20:07:48 UTC
From: Richard Knoppow
Topic: 19069 Message: 19090

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 01, 2014 11:35 AM
Subject: Re: [DrakeRadio] How to remove pre-selector knob

>I was 'this close' to dispatching the 'Grammar Police'
>after you.....
>
> 73, Garey - K4OAH
> Glen Allen, VA

The last time the grammar police tried to come here
they fell over a dangling participle and one of the grammar
dogs got stuck in a split infinitive. They decided there was
better hunting at the local
none-of-the-news-none-of-the-time radio station.

19091. Want to buy wattmeter element

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 20:18:17 UTC
From: Joe W2KJ
Topic: 19091 Message: 19091

Howdy Gang:

Want to buy either a Bird 250H 250W 2-30Mhz element or a Coaxial Dynamics CDI 82006 250W 2-30Mhz Element must be in excellent physical and operational condition.

Please send picture of actual element, along with the price and shipping to NC 28443 in email.

Many thanks and and keep the Drakes lit up.

73, Joe W2KJ

19092. Need two Zener diodes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 20:33:20 UTC
From: Joe W2KJ
Topic: 19063 Message: 19092

The diodes I need have been located....many thanks.

73, Joe W2KJ

19093. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:08:59 UTC
From: Robert Logan
Topic: 1054 Message: 19093

I don't give up, Gary. I just re-group!

If it's nothing electrical, it's something mechanical. First thing is to get another 6EV7 and swap it. Hope it's that simple.

If it doesn't work, then I'll take "to ground" readings on each pin and component of those 2 circuits and jiggle as I go, with and without V10.

Then I'll check solder joints.

Then I'll....

Obviously there is interaction between V9 and V10. I don't know why but I intend to find at least the cause.

I haven't ever seen you give up; I'm not either. I just appreciate your patience and the rest of the group in putting up with me. Great, great group. Bob

Sent from my iPhone

On Mar 1, 2014, at 1:32 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Don't give up, I'm not!! :-) I just think this is the next 'elimination' step, since we can't find anything 'electrical'.

Keep me posted!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to
> V10, then it must be physical and outside the box.
>
> Thanks for all your help and advice. It's been very informative for me. Cheers. Bob
>
> Sent from my iPhone
>
> On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:

>
> Bob -
>
> I'm running out of ideas.... I do not see any explanation for the purely mechanical plugging in of V10, (you say that
> when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning before any current is drawn by V10,)
> can affect the voltage on C107. I can't see any internal short paths through a defective V10 that could 'load' the
> circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find any 'intentional' electrical
> path to support that.
>
> It may be time to connect a meter to C107, and then probe with an INSULATED 'stick' around any wiring that might be
> associated with the socket for V10 while watching for meter movement. Inserting a tube in the socket does 'stiffen' the
> socket tags, possibly creating a path through adjacent wires. I realize it's a desperate move, but I just can't see
> anything intentional 'electrically' that could cause this.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> > Gary, I should have said 'or 40v less with V10 in.'
> >
> > Bob
> >
>

19094. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:10:54 UTC
From: Robert Logan
Topic: 1054 Message: 19094

Good idea. Something is connecting or not connecting when it shouldn't.

Sent from my iPhone

On Mar 1, 2014, at 1:32 PM, Garey Barrell <k4oah@mindspring.com> wrote:

Bob -

Don't give up, I'm not!! :-) I just think this is the next 'elimination' step, since we can't find anything 'electrical'.

Keep me posted!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
>
>
> Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to
> V10, then it must be physical and outside the box.
>
> Thanks for all your help and advice. It's been very informative for me. Cheers. Bob
>
> Sent from my iPhone
>
> On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
> Bob -
>
> I'm running out of ideas.... I do not see any explanation for the purely mechanical plugging in of V10, (you say that
> when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning before any current is drawn by V10,)
> can affect the voltage on C107. I can't see any internal short paths through a defective V10 that could 'load' the
> circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find any 'intentional' electrical
> path to support that.
>
> It may be time to connect a meter to C107, and then probe with an INSULATED 'stick' around any wiring that might be

> associated with the socket for V10 while watching for meter movement. Inserting a tube in the socket does 'stiffen' the
> socket tags, possibly creating a path through adjacent wires. I realize it's a desperate move, but I just can't see
> anything intentional 'electrically' that could cause this.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> Robert Logan wrote:
> > Gary, I should have said 'or 40v less with V10 in.'
> >
> > Bob
> >
>

19095. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:38:44 UTC
From: Richard Knoppow
Topic: 1054 Message: 19095

----- Original Message -----
From: "Robert Logan" <bob.logan47@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 01, 2014 1:08 PM
Subject: Re: [DrakeRadio] T-4XC problem

I don't give up, Gary. I just re-group!

If it's nothing electrical, it's something mechanical.
First thing is to get another 6EV7 and swap it. Hope it's
that simple.

If it doesn't work, then I'll take "to ground" readings on
each pin and component of those 2 circuits and jiggle as I
go, with and without V10.

Then I'll check solder joints.

Then I'll....

Obviously there is interaction between V9 and V10. I don't
know why but I intend to find at least the cause.

I haven't ever seen you give up; I'm not either. I just
appreciate your patience and the rest of the group in
putting up with me. Great, great group. Bob

Its surprising what you can find. Try the following,
clean the pins on the tube using fine steel wool and make
sure no residue is left. Clean the tube socket with those
little conical brushes sold for cleaning between your teeth.
Put some contact cleaner on them and work them in the
socket.
With the power off, insert the tube and wiggle it while
looking at the bottom of the socket with a strong light.
You may find something like an unsoldered lead or a broken
terminal on the socket or a bit of solder causing an
intermittent short. For poking at wiring with the power on
I use a wooden chop stick. Watch out for modern tuning
tools because they are often conductive to prevent static
charges from building up. The can conduct enough to bite you
if you hit high voltage (from the voice of experience).
Poking at wiring with the power off is nearly as effective
since you can see if anything is loose or shorting. You can
also grab and wiggle wires with small needle-nosed pliers.
My guess is that the tube is fine. Shorted tubes can be
found with an ohm meter if you know what the pin-out is.

Tubes can and do develop shorts, but most usual is just low resistance between heater and cathode. Check your tube but I think this is something else. It helps to have a strong light and maybe magnifying glasses. Strong drugstore reading glasses work well.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19096. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:42:25 UTC
From: Bob Loving
Topic: 1054 Message: 19096

Garey & Bob:

Could this be similar to a problem I saw with a TR-4C (resurrected "carcass") with R135 in the VOX circuit? One value for 6FQ7/6CG7 (33k) and a different value for the 6EV7 (68k). [Garey, you then informed me that R143 was also different for the two tubes, 330k for the 'FQ7 and 680k for the 'EV7.] The problem I saw was virtually no change in the VOX dropout delay with an increase in the timing resistor, R106 (3.3M).

The characteristic curves show that the 'FQ7 requires more negative G1 bias than the 'EV7 for a given plate voltage and plate current.

The manual that came with my ePay won bid had an "errata" sheet that showed several value changes around the VOX circuit depending upon whether an 'FQ7 or an 'EV7 was used in the socket.

Bob K9JU

>_____
> From: Garey Barrell <k4oah@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Saturday, March 1, 2014 1:32 PM
>Subject: Re: [DrakeRadio] T-4XC problem
>
>
>
>
>Bob -
>
>Don't give up, I'm not!! :-) I just think this is the next 'elimination' step, since we can't find anything 'electrical'.
>
>Keep me posted!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Robert Logan wrote:
>>
>>
>> Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to
>> V10, then it must be physical and outside the box.

>>
>> Thanks for all your help and advice. It's been very informative for me. Cheers. Bob
>>
>> Sent from my iPhone
>>
>> On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@mindspring.com <mailto:k4oah@...>>
wrote:
>>
>> Bob -
>>
>> I'm running out of ideas.... I do not see any explanation for the purely mechanical
plugging in of V10, (you say that
>> when you plug in V10 that the voltages on V9 (and C107) drop 'immediately', meaning
before any current is drawn by V10,)
>> can affect the voltage on C107. I can't see any internal short paths through a defective
V10 that could 'load' the
>> circuit node at C107. It would only take an addition 0.9 mA of current, but I can't find
any 'intentional' electrical
>> path to support that.
>>
>> It may be time to connect a meter to C107, and then probe with an INSULATED 'stick'
around any wiring that might be
>> associated with the socket for V10 while watching for meter movement. Inserting a tube
in the socket does 'stiffen' the
>> socket tags, possibly creating a path through adjacent wires. I realize it's a desperate
move, but I just can't see
>> anything intentional 'electrically' that could cause this.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com>>
>>
>> Robert Logan wrote:
>> > Gary, I should have said 'or 40v less with V10 in.'
>> >
>> > Bob
>> >
>>
>
>
>
>
>

19097. Re: [DrakeRadio] Want to buy wattmeter element

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:55:26 UTC
From: Charles Ring
Topic: 19091 Message: 19097

On 3/1/2014 1518, Joe W2KJ wrote:
>
> Howdy Gang:
>
> Want to buy either a Bird 250H 250W 2-30Mhz element or a Coaxial
> Dynamics CDI 82006 250W 2-30Mhz Element must be in excellent physical
> and operational condition.
>
> Please send picture of actual element, along with the price and
> shipping to NC 28443 in email.
>
> Many thanks and and keep the Drakes lit up.
>
> 73, Joe W2KJ
>
>
> <https://groups.yahoo.com/group/DrakeRadio/post;_ylc=X3oDMTJyZG1sczcyBF9TAzk3MzU5NzE0BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxOTA5MQRzZWMDZnRyBHNsawNycGx5BHN0aW1lAzEzOTM3MDUwOTk-?act=reply&messageNum=19091>
>
>
>
>
>

Are Bird and CDI elements really compatiple, electrically and
physically? I once tried to insert an element from one into a meter from
the other and it didn't fit.

--
Charles Ring W3NU

19098. Re: [DrakeRadio] Want to buy wattmeter element

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 21:59:30 UTC
From: Joe W2KJ
Topic: 19091 Message: 19098

Howdy Charles:

I have several Bird elements and one Coaxial Dynamics (CDI) and the CDI fits and works exactly the same as the bird elements.

73, Joe W2KJ

On Mar 1, 2014, at 4:55 PM, Charles Ring wrote:

>
> On 3/1/2014 1518, Joe W2KJ wrote:
>>
>> Howdy Gang:
>>
>> Want to buy either a Bird 250H 250W 2-30Mhz element or a Coaxial Dynamics CDI 82006 250W 2-30Mhz Element must be in excellent physical and operational condition.
>>
>> Please send picture of actual element, along with the price and shipping to NC 28443 in email.
>>
>> Many thanks and and keep the Drakes lit up.
>>
>> 73, Joe W2KJ
>>
>
> Are Bird and CDI elements really compatiple, electrically and physically? I once tried to insert an element from one into a meter from the other and it didn't fit.
>
> --
> Charles Ring W3NU
>

19099. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:10:39 UTC
From: Garey Barrell
Topic: 1054 Message: 19099

Bob -

Yes, there were changes in that area, some related to the tube change (necessitated by availability of the 6EV7) and
others by the change of relay from the British relay with 15k coil (no, NOT a Lucas relay!,) to the P&B with the 2.5k coil.

The problem here however is that I cannot find ANY electrical connection between the VOX amp stages that would (or
should?) affect the voltage on C107.....

So you don't have to pore over the last few weeks worth of posts, the problem presents as V9 Plates starved for plate
voltage due to 40 VDC drop in the C107 voltage node when the 6EV7 is inserted in the socket. This is an immediate drop,
NOT delayed by tube warmup time! The drop is a little less than a mA 'extra' current through R90, a 47k resistor tied
directly to the +250 VDC bus. All of the increased drop is across R90. The relay is NOT pulled in, 6EV7 'in' or 'out'.

Bob, if I have mis-stated any of the above, please step in and correct me!

???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Bob Loving wrote:
>
>
> Garey & Bob:
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> for 6FQ7/6CG7 (33k) and a different value for the 6EV7 (68k). [Garey, you then informed me that R143 was also
> different for the two tubes, 330k for the 'FQ7 and 680k for the 'EV7.] The problem I saw was virtually no change in
> the VOX dropout delay with an increase in the timing resistor, R106 (3.3M).
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> The characteristic curves show that the 'FQ7 requires more negative G1 bias than the 'EV7 for a given plate voltage
> and plate current.

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> The manual that came with my ePay won bid had an "errata" sheet that showed several value changes around the VOX
> circuit depending upon whether an 'FQ7 or an 'EV7 was used in the socket.
>
> Bob K9JU
>
>
> ---
> *From:* Garey Barrell <k4oah@...>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Saturday, March 1, 2014 1:32 PM
> *Subject:* Re: [DrakeRadio] T-4XC problem
>
> Bob -
>
> Don't give up, I'm not!! :-) I just think this is the next 'elimination' step, since we can't find anything
> 'electrical'.
>
> Keep me posted!
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> <www.k4oah.com <http://www.k4oah.com/>>
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> Robert Logan wrote:
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> >
> > Okay, Gary, I'll keep on going. It seems that if you see nothing schematically or functionally that relates V9 to
> > V10, then it must be physical and outside the box.
> >
> > Thanks for all your help and advice. It's been very informative for me. Cheers. Bob
> >
> > Sent from my iPhone
> >
> > On Mar 1, 2014, at 10:53 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
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> > Bob -
> >
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> > >
> > > Bob
> > >
> >
>
>

19100. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:32:11 UTC
From: Bob Loving
Topic: 1054 Message: 19100

Gotcha, Garey. I just thought that there might be a connection between value changes and the problem Bob is witnessing.

Sometimes an offbeat comment proves to be worth something. In this case, not so much. I'm as befuddled as the two of you as to what is happening.

Good luck.

Bob K9JU

>_____
> From: Garey Barrell <k4oah@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Saturday, March 1, 2014 4:10 PM
>Subject: Re: [DrakeRadio] T-4XC problem
>
>
>
>
>Bob -
>
>Yes, there were changes in that area, some related to the tube change (necessitated by availability of the 6EV7) and
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>directly to the +250 VDC bus. All of the increased drop is across R90. The relay is NOT pulled in, 6EV7 'in' or 'out'.
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>
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>Glen Allen, VA
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>> 'electrical'.
>>
>> Keep me posted!
>>
>> 73, Garey - K4OAH
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>> >

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>

19101. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:35:13 UTC
From: Garey Barrell
Topic: 1054 Message: 19101

A fresh pair of eyes NEVER hurts!

Thanks,

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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>
> Good luck.
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> Bob K9JU
>
>

19102. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:48:45 UTC
From: Robert Logan
Topic: 1054 Message: 19102

Nope. That's exactly how I figure it. Voltage is fine to R90, then goes haywire after that with V10 in.

So either something is wrong with the insides of the present 6EV7 or when it's in the socket something at or around the socket is shorting to something else or to ground. I view that as progress from where we started.

But i'll start with C107 voltage checks. I had intended to use my 9-pound mallet to jiggle things but an insulated stick with just have to do.

I may be bothering you and group with some meaningless data in the next few days.

My 32S-1went on a rant this afternoon saying what about me? I replied, but THIS is a Drake. Now I'm getting the silent treatment. Bob

Sent from my iPhone

On Mar 1, 2014, at 4:10 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Yes, there were changes in that area, some related to the tube change (necessitated by availability of the 6EV7) and
others by the change of relay from the British relay with 15k coil (no, NOT a Lucas relay!,) to the P&B with the 2.5k coil.

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Bob Loving wrote:
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>
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> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Saturday, March 1, 2014 1:32 PM
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> > Robert Logan wrote:
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> > > Bob
> > >
> >
>
>

19103. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:51:03 UTC
From: Robert Logan
Topic: 1054 Message: 19103

Bob, thanks for joining in. You never know what will jog another test that might solve it.
Bob 5A

Sent from my iPhone

On Mar 1, 2014, at 4:35 PM, Garey Barrell <k4oah@...> wrote:

A fresh pair of eyes NEVER hurts!

Thanks,

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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> you as to what is happening.
>
> Good luck.
>
> Bob K9JU
>
>

19104. Re: [DrakeRadio] T4XB: RF control repeak

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 22:59:30 UTC
From: Steve Wedge
Topic: 19054 Message: 19104

From a cold start, I wouldn't worry. If you're having to repeak it constantly, I'd be more concerned.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: oz8cth@...
Sent: Saturday, March 01, 2014 4:04 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] T4XB: RF control repeak

After 5-10 minutes I need to repeak the RF control on my T4XB to achieve the plate and output readings I had when I first tuned up the transmitter. Is this a normal thing for the T4X?

Thanks.
Peter OZ8CTH

19105. Re: [DrakeRadio] RE: R4A Preselector coils

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 23:03:55 UTC
From: Steve Wedge
Topic: 19022 Message: 19105

You may have some adjusting to do with the coil carriage in the PBT assembly. If you don't have a VTVM, use a scope on the test point and adjust for max negative level.

If adjusting the coils doesn't change the situation, you could have a bad cap where the output of the filter goes back into the IF. I had the 0.1 metal film cap go bad and it was giving me a lot of trouble before I replaced it.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@...
Sent: Saturday, March 01, 2014 7:49 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] RE: R4A Preselector coils

Was listening with the radio last night after cleaning up, she sounds NICE. I think I have an alignment or other issue with the passband controls; on 4.8 kc and 2.4 kc CW signal is nice and strong, when I switch over to 1.2 kc it almost disappears, much much weaker, and 0.4 kc is even weaker. I am not worried, might be an alignment issue. The fuse in the radio is a 4 amp, THAT'S gotta go! Also PTO dial is OFF; when I slide the little red bar all the way to the left, it is STILL not on "0" when it should be. Might be a set-screw somewhere.

That passband control is wierd, all just adds "whooshiness" to my signal. But I do not have all the alignment tools needs (no decent signal generator, just an old Eico 324 and I have been told that is a horrible one).

p

19106. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 23:15:21 UTC
From: Steve Wedge
Topic: 18933 Message: 19106

I should have mentioned that, too, Garey. I ALWAYS make sure the set's working at least reasonably well before I wash it. Output and receive on all bands, calibrator working, meters functioning, etc.

After the cleaning, there may need to be some new parts, but I have at least established that it was a working set before it's cleaned. It makes for much easier troubleshooting afterwards if something doesn't work. Usually, they come right to life after the cleaning, but this last T-4X did not. The problem turned out to be the balanced modulator adjustment pot. Must have had some schmutz on the wiper arm.

This Tx is now sitting next to my R-4B and I had it on 15m earlier today, both CW and SSB. Interestingly, it's close enough in frequency to the R-4B that I was actually able to work transceive on SSB with it!

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Saturday, March 01, 2014 9:47 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4C keeps going to TX

Steve -

Your PS voltages don't look out of reason.

First, the relay is turned OFF by the BIAS supply, and ON by rectified AF, either from voice or SIDETONE, depending upon
MODE. So having the relay kick in without provocation usually indicates a low or loss of BIAS voltage. Same for a 'hot
PA' area, although the PA does get pretty warm just from the three big filaments. With your BIAS set at -70 VDC, the PA
stage should be cut off, even if the relay DOES kick in. Typical operating 'idle' voltage is about -62 VDC.

The '10 second' delay is the tube warm-up delay, which is typically specified as 11 seconds.

So. First thing I would do is set the BIAS as far negative as it will go. Should go to around -85 to -90 VDC. Double
check ALL the tubes to ensure that each one is in the right socket! Then pull the 6EV7 (V19). This will allow you to
work on just the receiver and find out if it's ok.

One word of advice, (too late,) if you insist on drowning a radio, verify its operation BEFORE.

Let us know what happens!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hello All,
>
> Here is where I start crying HELP!
>
> Quick back story:- eBay TR-4C "...worked last time I used it. RX was
> working. Didn't test TX". The usual story. Came without PSU. Sourced AC3
> and immediately went to install ES4AC-3 PSU upgrade kit. During
> installation of PSU upgrade kit found that my AC3 only had a 110VAC
> transformer (only one primary winding).
>
> Tried to test TR-4C in what I thought was RX mode. With upgraded PSU
> running from 240 to 110 step-down transformer. No attempt was going to be
> made to TX as step-down transformer would not be able to supply required
> TX current. No attempt was made to adjust BIAS.
>
> Result. No audio at all. Fiddled around with controls not really knowing
> what I was doing (Yes, I do have a manual, and Yes, I did read it prior).
> Still no audio. After a couple minutes with power applied the fuse 2.5A in
> the step-down transformer blew. There was a "burst" of RX audio. Not sure
> if it was before or *after* the fuse blew. Discovered to my horror that
> the PA cage was very warm to touch. Concluded the radio had gone into TX.
>
> Radio was then given the "Works Clean" (Steve style :-). Yes I now know
> that many frown upon this practice. Hayseed electrolytic capacitor kit
> fitted. Lot's of other cosmetic stuff. Complete clean and re-build of PTO.
> Radio now looks like brand new. Tightened all under chassis screws holding
> tag-strips and PCB's
>
> Second AC3 sourced. This time transformer has both primary windings.
> Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded like
> it was going into saturation at anything much over 220VAC (250VAC 50hz at
> wall outlet). Modified PSU with step-down auto-transformer so that
> supplied mains is 221VAC and also threw in a soft-start module.
>
> Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about
> 75ohms. Replaced them.
>
> (Sorry this is so long).
>

> Today was the big day. Smoke test Number-II ! Same story (grin). Well almost.
>
> Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing
> for about ten seconds. Then S-Meter starts to move fairly quickly towards
> FSD. RX audio static heard for a few seconds at this point. The relay then
> "clicks", audio cuts out, and I assume that I am in TX mode. I turn power
> off at this point.
>
> I have measured my PSU voltages at the feed-through's under chassis. All
> my voltages are low because of dropping the mains supply to 221VAC. Here
> are my voltages under RX load:-
>
> +650Vdc => +632Vdc
> +250Vdc => +225Vdc
> BIAS => -70.6 to -34Vdc (currently set -70.6)
> Heater => 11.25Vac
>
> Are my voltages causing this problem? Any advice *very* gratefully received.
>
> 73 Steve
> VK2SJA
>
>

19107. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-01 23:28:33 UTC
From: Steve Wedge
Topic: 19069 Message: 19107

I've never had to remove the slug rack, so take heart.

You may need to take off the front panel, however. I always have the front panel off when I'm doing a refurb/resto anyway, and the hole through the chassis is much larger than the hole in the panel, allowing you more room to move things around.

The Jackson Drive assembly - including the front shaft, which is attached permanently - can move toward the front of the set and lifts out of the hole in the chassis. You may need to crimp the bottom retaining tab that positions the drive to the chassis, as they're usually flattened when installed to hold them in place. The front shaft doesn't come off the drive assembly. There is enough slop in the whole thing, when loosened, to get it off the slug rack shaft.

Don't forget that the whole thing works by having a pre-load, pressing toward the front. Get it so that there's some pressure in that direction when reinstalling and you should be okay. It can be a little finicky. Once you know it's working right, you can re-flatten the tab under the chassis again.

I need to take some pics of the next one I do, as it's easier to do than it is to describe it.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Saturday, March 01, 2014 12:12 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

Paul -

Steve is our vernier expert!.. I seem to recall you have to remove the slug rack to get it OUT of the radio.

There is a 'fix' for certain conditions that consists of a spacer to force the smaller, center shaft further forward to
allow the balls to ride 'outside' the groove. It's on my CDs, and I'll send you the file.

The vernier assembly itself is 'crimped' together, and not designed to be 'repaired'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I am getting some slipping of my preselector. I was wanting to take it apart and look at it, the ball bearings. I
> loosened the two screws on the "shaft", but what do I do now? Does that ball-bearing holder/vernier thing slide off?
> How do I get the shaft out of the front?
>
> paul
>
>

19108. Re: [DrakeRadio] How to remove pre-selector knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 01:33:33 UTC
From: VE3AX/7
Topic: 19069 Message: 19108

All:

Evidently there is more than one style of preselector shaft and vernier housing out there. The method I described worked for an SPR-4 of mid-run vintage, but the photos of an R-4A shown here;

http://www.k4lrg.org/Projects/Magic_of_Boatanchors/index.html

show a shaft without an “hourglass-shaped” machined end, but one with a more “square-cut” thinner diameter at the ball race. The idea is pretty much the same however. The other difference on the R-4A appears to be a rear cover for the bearing race, if I am interpreting the items in the picture correctly. The SPR-4 I repaired had no bearing race cover on the rear-facing side, leaving the bearings to be somewhat visible from the rear. Although difficult to be sure, I am almost certain the 4 bearings in the SPR-4 were quite a bit larger than those shown in the R-4A pics.

Unfortunately, K4LRG does not describe removal of the preselector.

Indeed, as Steve has stated, removal of the front panel affords one much extra space for working on these. This is done as a matter of course on any 4-line refurb done here.

As usual, YMMV!

73

Peter
VE3AX/7

From: Steve Wedge
Sent: Saturday, March 01, 2014 3:28 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

I've never had to remove the slug rack, so take heart.

You may need to take off the front panel, however. I always have the front panel off when I'm doing a refurb/resto anyway, and the hole through the chassis is much larger than the hole in the panel, allowing you more room to move things around.

The Jackson Drive assembly - including the front shaft, which is attached permanently - can move toward the front of the set and lifts out of the hole in the chassis. You may need to crimp the bottom retaining tab that positions the drive to the chassis, as they're usually flattened when installed to hold them in place. The front shaft doesn't come off the drive assembly. There is enough slop in the whole thing, when loosened, to get it off the slug rack shaft.

Don't forget that the whole thing works by having a pre-load, pressing toward the front. Get it so that there's some pressure in that direction when reinstalling and you should be

okay. It can be a little finicky. Once you know it's working right, you can re-flatten the tab under the chassis again.

I need to take some pics of the next one I do, as it's easier to do than it is to describe it.

73,

Steve Wedge, W1ES/4

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Sent: Saturday, March 01, 2014 12:12 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How to remove pre-selector knob

Paul -

Steve is our vernier expert!.. I seem to recall you have to remove the slug rack to get it OUT of the radio.

There is a 'fix' for certain conditions that consists of a spacer to force the smaller, center shaft further forward to
allow the balls to ride 'outside' the groove. It's on my CDs, and I'll send you the file.

The vernier assembly itself is 'crimped' together, and not designed to be 'repaired'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I am getting some slipping of my preselector. I was wanting to take it apart and look at it, the ball bearings. I
> loosened the two screws on the "shaft", but what do I do now? Does that ball-bearing holder/vernier thing slide off?
> How do I get the shaft out of the front?
>
> paul
>
>

19109. Re: [DrakeRadio] Nets?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 02:56:20 UTC
From: Whitebear1122
Topic: 19054 Message: 19109

Thanks Bernie for the resend! I'm going to try and be around for the Sunday 40 meter net tomorrow. Hope to hear everyone. 73, Scott WA9WFA

On Mar 1, 2014, at 8:21 AM, Bernie Roche <ve3otr@...> wrote:

>
>
> Dear Scott:
>
> Here's a copy of the previous msg.:
>
> Mark Gilger mgilger@brightdsl.net via yahoogroups.com
>
> Jan 6
>
> Reply
>
> to drakeradio
>
>
> Since the 40 meter technical net was created many years ago, the
> Sunday start time has always 20:00 GMT . Due to recent problems with
> broadcast station interference, we have decided to move the net to a
> new time of 4 pm Eastern. This will take effect this coming Sunday,
> January 12th.
>
> Moving the net has been a regular discussion point every winter for
> several years now, but no action was ever taken. This year the signal
> strength of the interfering station has been so strong, we felt it
> was needed to keep the net healthy. Please make the new times on your
> calendar and we hope to hear everyone this coming Sunday at the new time.
>
> The Tuesday evening net remains unchanged and will remain on Tuesday
> at 8:00 PM on 3.865 mhz.
>
> Sunday @ 4:00 PM Eastern on 7.238 mhz +/- QRM
> Tuesday @ 8:00 PM Eastern on 3.865 mhz +/- QRM
>
> 73's,
> Mark, WB0IQK
>

19110. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 03:56:19 UTC
From: Steve VK2SJA
Topic: 18933 Message: 19110

Garey,

I'm shocked! Shocked I say. That you would think for even one moment that this young (~=50) Aussie bush ranger would rip into a rig without first verifying it's operational state! I did *verify* it. It wasn't working. So THEN I washed it. :D LOL.

Sorry, All jokes aside I do get the point. I hereby faithfully promise that I'll always "fix before clean" in future.

The RX worked beautifully with V19 pulled. Thanks for the pointer. So then I got out the circuit diagram and your indispensable service guide and went hunting for my missing BIAS voltage.

I found it. I fixed it. I caused it.

Forgot to mention that I replaced the 1/4" phono jack with a NOS S230 socket. I like to try and keep things as original as possible. The wire controlling PTT that goes from the tip of the S230 to the junction of R105, R108 & R142. I had inadvertently soldered this wire to the ground lug of the S230 socket. So of course the radio was in TX!!

Along the way discovered that R106 3.3M was closer to 25.1M. So I replaced it.

I ended up having to replace the wire running from the S230 socket to R105. Looking around in my junk box the closest thing I had to the original wire was some solid core Cat5e wire. But that nice new blue wire and small yellow cable tie just looks so out of place :-(

Anyone got a suggestion for where I might obtain some suitable "Drake" looking wire?

Time to take a lunch break and then on to the alignments. Still to find out if the TX side of things works.

I'll let you know how I get on.

Thanks All!

73, Steve
VK2SJA

> I should have mentioned that, too, Garey. I ALWAYS make sure the set's
> working at least reasonably well before I wash it. Output and receive on
> all bands, calibrator working, meters functioning, etc.
>
> After the cleaning, there may need to be some new parts, but I have at

> least established that it was a working set before it's cleaned. It makes
> for much easier troubleshooting afterwards if something doesn't work.
> Usually, they come right to life after the cleaning, but this last T-4X
> did not. The problem turned out to be the balanced modulator adjustment
> pot. Must have had some schmutz on the wiper arm.
>
> This Tx is now sitting next to my R-4B and I had it on 15m earlier today,
> both CW and SSB. Interestingly, it's close enough in frequency to the
> R-4B that I was actually able to work transceive on SSB with it!
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>
> From: Garey Barrell
> Sent: Saturday, March 01, 2014 9:47 AM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] TR-4C keeps going to TX
>
>
>
> Steve -
>
> Your PS voltages don't look out of reason.
>
> First, the relay is turned OFF by the BIAS supply, and ON by rectified AF,
> either from voice or SIDETONE, depending upon
> MODE. So having the relay kick in without provocation usually indicates a
> low or loss of BIAS voltage. Same for a 'hot
> PA' area, although the PA does get pretty warm just from the three big
> filaments. With your BIAS set at -70 VDC, the PA
> stage should be cut off, even if the relay DOES kick in. Typical operating
> 'idle' voltage is about -62 VDC.
>
> The '10 second' delay is the tube warm-up delay, which is typically
> specified as 11 seconds.
>
> So. First thing I would do is set the BIAS as far negative as it will go.
> Should go to around -85 to -90 VDC. Double
> check ALL the tubes to ensure that each one is in the right socket! Then
> pull the 6EV7 (V19). This will allow you to
> work on just the receiver and find out if it's ok.
>
> One word of advice, (too late,) if you insist on drowning a radio, verify

> its operation BEFORE.
>
> Let us know what happens!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve VK2SJA wrote:
>> Hello All,
>>
>> Here is where I start crying HELP!
>>
>> Quick back story:- eBay TR-4C "...worked last time I used it. RX was
>> working. Didn't test TX". The usual story. Came without PSU. Sourced AC3
>> and immediately went to install ES4AC-3 PSU upgrade kit. During
>> installation of PSU upgrade kit found that my AC3 only had a 110VAC
>> transformer (only one primary winding).
>>
>> Tried to test TR-4C in what I thought was RX mode. With upgraded PSU
>> running from 240 to 110 step-down transformer. No attempt was going to
>> be
>> made to TX as step-down transformer would not be able to supply required
>> TX current. No attempt was made to adjust BIAS.
>>
>> Result. No audio at all. Fiddled around with controls not really knowing
>> what I was doing (Yes, I do have a manual, and Yes, I did read it
>> prior).
>> Still no audio. After a couple minutes with power applied the fuse 2.5A
>> in
>> the step-down transformer blew. There was a "burst" of RX audio. Not
>> sure
>> if it was before or *after* the fuse blew. Discovered to my horror that
>> the PA cage was very warm to touch. Concluded the radio had gone into
>> TX.
>>
>> Radio was then given the "Works Clean" (Steve style :-). Yes I now know
>> that many frown upon this practice. Hayseed electrolytic capacitor kit
>> fitted. Lot's of other cosmetic stuff. Complete clean and re-build of
>> PTO.
>> Radio now looks like brand new. Tightened all under chassis screws
>> holding
>> tag-strips and PCB's
>>
>> Second AC3 sourced. This time transformer has both primary windings.
>> Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded
>> like

>> it was going into saturation at anything much over 220VAC (250VAC 50hz
>> at
>> wall outlet). Modified PSU with step-down auto-transformer so that
>> supplied mains is 221VAC and also threw in a soft-start module.
>>
>> Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about
>> 75ohms. Replaced them.
>>
>> (Sorry this is so long).
>>
>> Today was the big day. Smoke test Number-II ! Same story (grin). Well
>> almost.
>>
>> Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing
>> for about ten seconds. Then S-Meter starts to move fairly quickly
>> towards
>> FSD. RX audio static heard for a few seconds at this point. The relay
>> then
>> "clicks", audio cuts out, and I assume that I am in TX mode. I turn
>> power
>> off at this point.
>>
>> I have measured my PSU voltages at the feed-through's under chassis. All
>> my voltages are low because of dropping the mains supply to 221VAC. Here
>> are my voltages under RX load:-
>>
>> +650Vdc => +632Vdc
>> +250Vdc => +225Vdc
>> BIAS => -70.6 to -34Vdc (currently set -70.6)
>> Heater => 11.25Vac
>>
>> Are my voltages causing this problem? Any advice *very* gratefully
>> received.
>>
>> 73 Steve
>> VK2SJA
>>
>>
>
>
>
>

19111. Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 04:21:43 UTC
From: Whitebear1122
Topic: 18933 Message: 19111

Out of curiosity what Drake branded microphones were sold for use the 4C twins or TR-4CW?
73, Scott WA9WFA
Finally Drake TR-4CW-RIT

19112. I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 04:21:41 UTC
From: Steve VK2SJA
Topic: 18933 Message: 19112

Hi All,

Just turned off the shack lights (not night-time but curtains drawn).
Turned around to turn off the TR-4C (covers off) before going to have some
lunch.

WOW! Sure is a beautiful sight in the dark! First time I've seen it.

73, Steve
VK2SJA

19113. Re: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 04:55:46 UTC
From: Whitebear1122
Topic: 18933 Message: 19113

Agreed, the blue dial & meter, and red indicators make the TR-4 a pretty sight when the lights are out. I'll bet the glow of the tubes with the cover off really spiffed up the look. I did that just the other night for the first time :) 73, Scott WA9WFA

On Mar 1, 2014, at 10:21 PM, Steve VK2SJA <vk2sja@...> wrote:

> Hi All,
>
> Just turned off the shack lights (not night-time but curtains drawn).
> Turned around to turn off the TR-4C (covers off) before going to have some
> lunch.
>
> WOW! Sure is a beautiful sight in the dark! First time I've seen it.
>
> 73, Steve
> VK2SJA
>

19114. WTB TR-7 Filters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 05:46:05 UTC
From: <w7apm@...>
Topic: 19114 Message: 19114

Looking for a 500 hz filter for a TR-7. Will buy or have C-line and a few other filters to trade.

Thanks!
Marty

19115. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 05:53:40 UTC
From: Richard Knoppow
Topic: 18933 Message: 19115

----- Original Message -----
From: "Steve VK2SJA" <vk2sja@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 01, 2014 7:56 PM
Subject: Re: [DrakeRadio] TR-4C keeps going to TX

> Garey,
>
> I'm shocked! Shocked I say. That you would think for even
> one moment that
> this young (~=50) Aussie bush ranger would rip into a rig
> without first
> verifying it's operational state! I did *verify* it. It
> wasn't working. So
> THEN I washed it. :D LOL.
>
But... Its so much easier to work on stuff that's
clean.
Congratulations on finding the problem, its the kind of
thing that drives you round the bend. Its helpful if you
can find someone else to look since its so easy to overlook
the same thing over and over.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19116. Re: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 05:59:18 UTC
From: Richard Knoppow
Topic: 18933 Message: 19116

----- Original Message -----
From: "Whitebear1122" <whitebear1122@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 01, 2014 8:55 PM
Subject: Re: [DrakeRadio] I just turned out the shack lights - WOW!

> Agreed, the blue dial & meter, and red indicators make the
> TR-4 a pretty sight when the lights are out. I'll bet the
> glow of the tubes with the cover off really spiffed up the
> look. I did that just the other night for the first
> time :) 73, Scott WA9WFA
>
I have a theory that things that run by heat all seem alive. Tube radios and steam locomotives for instance. We know there are electrons running around in the solid state stuff but they are like ants, just following some mysterious plan, but tubes glow and are hot like us. You can visualize the little electrons streaming around in the tubes doing stuff.
The first time I saw a Drake rig (new, belonged to my brother) I thought the blue dials looked phosphorescent.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19117. RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 06:07:19 UTC
From: <w9dz@...>
Topic: 18936 Message: 19117

If the 2.3 filter was bad I believe it would affect transmit too as that filter is used when transmitting any mode.

I just removed the filter board and proceeded to check the diodes. When I went to check CR-904 which is a shunt diode, it's missing! The leads have been cut/sheared off even with the top of the board. Would this have been some kind of mod/production change or should the diode be in place no matter what?

Thanks

19118. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 06:44:57 UTC
From: VE3AX/7
Topic: 18933 Message: 19118

Two I am aware of..

The 729 SRD was a Drake branded EV-729SR that was offered with early Drake 4-line rigs though am not aware of exact dates it was available.

Later on the Drake 7075 with moulded right angled .210" mic plug suited the TR-series transceivers and B-line very well as they had side mounted mic jacks. Nice mic for the C-line too! Not sure who the manufacturer was but guessing it was Astatic.

The Turner 444 works well with the 4-line.

The later Drake 7077 with 4 pin mic connector was offered for the 5 and 7 line.

73

Peter VE3AX/7

From: Whitebear1122
Sent: Saturday, March 01, 2014 8:21 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake Microphones

Out of curiosity what Drake branded microphones were sold for use the 4C twins or TR-4CW?
73, Scott WA9WFA
Finally Drake TR-4CW-RIT

19119. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 07:19:56 UTC
From: Jim Shorney
Topic: 18933 Message: 19119

The 7075 is a Turner, and I believe it uses the same ceramic element as the Turner +3 amplified mic. The design is the same as the +3 series except for the hole for mounting the gain pot in the Turner. The +3 is a very good sounding mic on my TR-7, as tested with along with a variety of mics during QSOs with friends who know my voice.

I also have an EV 729, and it's "brother" the 927, and I'm told that they also sound very good. The 729 has a ceramic element, and the 927 is the same mic with a crystal element. I was surprised that the 927, as old as it is, worked at all....

The 444 is also an excellent sounding mic, but has a somewhat different "character" due to it's dynamic element.

The 7077 was a dynamic mic manufactured by Astatic. I have one of those too. I don't use it much because it was at the bottom of the pack in my test sessions. Not that it isn't a good sounding mic, it just wasn't preferred over any of the others I've tried. I've considered trying to swap it to someone for a 7075. It seems silly to keep it just because it matches my 7-line.

73

-Jim
NU0C

On Sat, 1 Mar 2014 22:44:57 -0800, VE3AX/7 wrote:

>Two I am aware of..
>
>The 729 SRD was a Drake branded EVâ☐☐729SR that was offered with early Drake 4-line rigs though am not aware of exact dates it was available.
>
>Later on the Drake 7075 with moulded right angled .210â☐☐ mic plug suited the TR-series transceivers and B-line very well as they had side mounted mic jacks. Nice mic for the C-line too! Not sure who the manufacturer was but guessing it was Astatic.
>
>The Turner 444 works well with the 4-line.
>
>The later Drake 7077 with 4 pin mic connector was offered for the 5 and 7 line.
>
>73
>
>Peter VE3AX/7
>
>From: Whitebear1122
>Sent: Saturday, March 01, 2014 8:21 PM

>To: DrakeRadio@yahoogroups.com
>Subject: [DrakeRadio] Drake Microphones
>
>
>Out of curiosity what Drake branded microphones were sold for use the 4C twins or TR-4CW?
>73, Scott WA9WFA
>Finally Drake TR-4CW-RIT
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19120. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 07:23:01 UTC
From: VE3AX/7
Topic: 18933 Message: 19120

Sorry – it's late...that would be a Shure 444....

From: VE3AX/7
Sent: Saturday, March 01, 2014 10:44 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

Two I am aware of..

The 729 SRD was a Drake branded EV-729SR that was offered with early Drake 4-line rigs though am not aware of exact dates it was available.

Later on the Drake 7075 with moulded right angled .210" mic plug suited the TR-series transceivers and B-line very well as they had side mounted mic jacks. Nice mic for the C-line too! Not sure who the manufacturer was but guessing it was Astatic.

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Peter VE3AX/7

From: Whitebear1122
Sent: Saturday, March 01, 2014 8:21 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake Microphones

Out of curiosity what Drake branded microphones were sold for use the 4C twins or TR-4CW?
73, Scott WA9WFA
Finally Drake TR-4CW-RIT

19121. Re: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 14:17:54 UTC
From: David Stinson
Topic: 18933 Message: 19121

Long ago on a beautiful day in Austin, Texas, I was sitting
in my driveway testing a big box of tubes. A young lady
student came by- she was selling something- don't remember
what it was. She asked:
"What are those?"
"Vacuum electron tubes. They're used in antique radios."
"Aren't those the things that have red fire in them
when you turn them on?"
"Yes, you could say that."
"That is so cool....."

Nice memory.

73 Dave AB5S

19122. Re: [DrakeRadio] TR-4C keeps going to TX

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 15:36:06 UTC
From: Garey Barrell
Topic: 18933 Message: 19122

Steve -

Cool! Glad it was an easy fix... At least you 'verified' it didn't work..... :-)

Service, restoration, repair, are ALL 'divide and conquer' exercises.

With that R106 in there you would have waited a long time for the VOX to drop out after each transmission.... :-)

Fortunately, I don't think anyone else was foolish enough to use that wire. Possibly from a donor unit, might post a
'want'.

Onward and upward! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Garey,
>
> I'm shocked! Shocked I say. That you would think for even one moment that
> this young (~=50) Aussie bush ranger would rip into a rig without first
> verifying it's operational state! I did *verify* it. It wasn't working. So
> THEN I washed it. :D LOL.
>
> Sorry, All jokes aside I do get the point. I hereby faithfully promise
> that I'll always "fix before clean" in future.
>
> The RX worked beautifully with V19 pulled. Thanks for the pointer. So then
> I got out the circuit diagram and your indispensable service guide and
> went hunting for my missing BIAS voltage.
>
> I found it. I fixed it. I caused it.
>
> Forgot to mention that I replaced the 1/4" phono jack with a NOS S230
> socket. I like to try and keep things as original as possible. The wire
> controlling PTT that goes from the tip of the S230 to the junction of
> R105, R108 & R142. I had inadvertently soldered this wire to the ground
> lug of the S230 socket. So of course the radio was in TX!!
>
> Along the way discovered that R106 3.3M was closer to 25.1M. So I replaced
> it.

>
> I ended up having to replace the wire running from the S230 socket to
> R105. Looking around in my junk box the closest thing I had to the
> original wire was some solid core Cat5e wire. But that nice new blue wire
> and small yellow cable tie just looks so out of place :-(
>
> Anyone got a suggestion for where I might obtain some suitable "Drake"
> looking wire?
>
> Time to take a lunch break and then on to the alignments. Still to find
> out if the TX side of things works.
>
> I'll let you know how I get on.
>
> Thanks All!
>
> 73, Steve
> VK2SJA
>
>
>> I should have mentioned that, too, Garey. I ALWAYS make sure the set's
>> working at least reasonably well before I wash it. Output and receive on
>> all bands, calibrator working, meters functioning, etc.
>>
>> After the cleaning, there may need to be some new parts, but I have at
>> least established that it was a working set before it's cleaned. It makes
>> for much easier troubleshooting afterwards if something doesn't work.
>> Usually, they come right to life after the cleaning, but this last T-4X
>> did not. The problem turned out to be the balanced modulator adjustment
>> pot. Must have had some schmutz on the wiper arm.
>>
>> This Tx is now sitting next to my R-4B and I had it on 15m earlier today,
>> both CW and SSB. Interestingly, it's close enough in frequency to the
>> R-4B that I was actually able to work transceive on SSB with it!
>>
>> Steve Wedge, W1ES/4
>>
>> Time flies like an arrow; fruit flies like a banana.
>>
>>
>> All my computers have my signature with various pearls of wisdom appended
>> thereto.
>>
>>
>>
>> From: Garey Barrell
>> Sent: Saturday, March 01, 2014 9:47 AM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] TR-4C keeps going to TX
>>

>>
>>
>> Steve -
>>
>> Your PS voltages don't look out of reason.
>>
>> First, the relay is turned OFF by the BIAS supply, and ON by rectified AF,
>> either from voice or SIDETONE, depending upon
>> MODE. So having the relay kick in without provocation usually indicates a
>> low or loss of BIAS voltage. Same for a 'hot
>> PA' area, although the PA does get pretty warm just from the three big
>> filaments. With your BIAS set at -70 VDC, the PA
>> stage should be cut off, even if the relay DOES kick in. Typical operating
>> 'idle' voltage is about -62 VDC.
>>
>> The '10 second' delay is the tube warm-up delay, which is typically
>> specified as 11 seconds.
>>
>> So. First thing I would do is set the BIAS as far negative as it will go.
>> Should go to around -85 to -90 VDC. Double
>> check ALL the tubes to ensure that each one is in the right socket! Then
>> pull the 6EV7 (V19). This will allow you to
>> work on just the receiver and find out if it's ok.
>>
>> One word of advice, (too late,) if you insist on drowning a radio, verify
>> its operation BEFORE.
>>
>> Let us know what happens!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Steve VK2SJA wrote:
>>> Hello All,
>>>
>>> Here is where I start crying HELP!
>>>
>>> Quick back story:- eBay TR-4C "...worked last time I used it. RX was
>>> working. Didn't test TX". The usual story. Came without PSU. Sourced AC3
>>> and immediately went to install ES4AC-3 PSU upgrade kit. During
>>> installation of PSU upgrade kit found that my AC3 only had a 110VAC
>>> transformer (only one primary winding).
>>>
>>> Tried to test TR-4C in what I thought was RX mode. With upgraded PSU
>>> running from 240 to 110 step-down transformer. No attempt was going to
>>> be

>>> made to TX as step-down transformer would not be able to supply required
>>> TX current. No attempt was made to adjust BIAS.
>>>
>>> Result. No audio at all. Fiddled around with controls not really knowing
>>> what I was doing (Yes, I do have a manual, and Yes, I did read it
>>> prior).
>>> Still no audio. After a couple minutes with power applied the fuse 2.5A
>>> in
>>> the step-down transformer blew. There was a "burst" of RX audio. Not
>>> sure
>>> if it was before or *after* the fuse blew. Discovered to my horror that
>>> the PA cage was very warm to touch. Concluded the radio had gone into
>>> TX.
>>>
>>> Radio was then given the "Works Clean" (Steve style :-). Yes I now know
>>> that many frown upon this practice. Hayseed electrolytic capacitor kit
>>> fitted. Lot's of other cosmetic stuff. Complete clean and re-build of
>>> PTO.
>>> Radio now looks like brand new. Tightened all under chassis screws
>>> holding
>>> tag-strips and PCB's
>>>
>>> Second AC3 sourced. This time transformer has both primary windings.
>>> Modify AC3 for 240VAC and install ES4AC-3. Found transformer sounded
>>> like
>>> it was going into saturation at anything much over 220VAC (250VAC 50hz
>>> at
>>> wall outlet). Modified PSU with step-down auto-transformer so that
>>> supplied mains is 221VAC and also threw in a soft-start module.
>>>
>>> Checked R42, 43, 44 - 68ohm resistors. Found all mine were at about
>>> 75ohms. Replaced them.
>>>
>>> (Sorry this is so long).
>>>
>>> Today was the big day. Smoke test Number-II ! Same story (grin). Well
>>> almost.
>>>
>>> Power radio on. Mode=SSB, TX-Gain at Min. Plate & Load both Min. Nothing
>>> for about ten seconds. Then S-Meter starts to move fairly quickly
>>> towards
>>> FSD. RX audio static heard for a few seconds at this point. The relay
>>> then
>>> "clicks", audio cuts out, and I assume that I am in TX mode. I turn
>>> power
>>> off at this point.
>>>
>>> I have measured my PSU voltages at the feed-through's under chassis. All
>>> my voltages are low because of dropping the mains supply to 221VAC. Here
>>> are my voltages under RX load:-

>>>
>>> +650Vdc => +632Vdc
>>> +250Vdc => +225Vdc
>>> BIAS => -70.6 to -34Vdc (currently set -70.6)
>>> Heater => 11.25Vac
>>>
>>> Are my voltages causing this problem? Any advice *very* gratefully
>>> received.
>>>
>>> 73 Steve
>>> VK2SJA
>>>
>>>
>>
>>
>>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>
>
>
> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7142 - Release Date: 03/02/14
>
>

19123. Re: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 15:40:01 UTC
From: Garey Barrell
Topic: 18933 Message: 19123

Even better, if the room is 'really' dark, you can see the projected light through the top cover projecting onto the
ceiling. That one always takes me back to being on the air after 'lights out'! Some kids just read under the blankets
with a flashlight..... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 wrote:
> Agreed, the blue dial & meter, and red indicators make the TR-4 a pretty sight when the lights are out. I'll bet the glow of the tubes with the cover off really spiffed up the look. I did that just the other night for the first time :) 73, Scott WA9WFA
>
> On Mar 1, 2014, at 10:21 PM, Steve VK2SJA <vk2sja@...> wrote:
>
>> Hi All,
>>
>> Just turned off the shack lights (not night-time but curtains drawn).
>> Turned around to turn off the TR-4C (covers off) before going to have some
>> lunch.
>>
>> WOW! Sure is a beautiful sight in the dark! First time I've seen it.
>>
>> 73, Steve
>> VK2SJA
>>

19124. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 15:48:48 UTC
From: Garey Barrell
Topic: 18936 Message: 19124

I know of no mod, (or reason,) to remove CR904, unless it was shorted!! Perhaps one of our TR-7 experts knows of such a
mod.

I can only see that it would allow some signal through the 2.3 filter even when any other filter was selected. I don't
see how that would affect your specific problem though. Sure not a good sign though, 'someone' has been 'fixing'!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w9dz@... wrote:
>
>
> If the 2.3 filter was bad I believe it would affect transmit too as that filter is used when transmitting any mode.
>
>
> I just removed the filter board and proceeded to check the diodes. When I went to check CR-904 which is a shunt
> diode, it's missing! The leads have been cut/sheared off even with the top of the board. Would this have been some
> kind of mod/production change or should the diode be in place no matter what?
>
>

19125. AW: Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:01:20 UTC
From: Dieter Horst
Topic: 19125 Message: 19125

Strange 'mod' indeed...

I would think everything is going to be fine if you restore it back to original.

73 Dieter DL5RDO

-------- Ursprüngliche Nachricht --------
Von: Garey Barrell <k4oah@mindspring.com>
Datum: 02.03.2014 16:48 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

I know of no mod, (or reason,) to remove CR904, unless it was shorted!! Perhaps one of our TR-7 experts knows of such a
mod.

I can only see that it would allow some signal through the 2.3 filter even when any other filter was selected. I don't
see how that would affect your specific problem though. Sure not a good sign though, 'someone' has been 'fixing'!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w9dz@yahoo.com wrote:
>
>
> If the 2.3 filter was bad I believe it would affect transmit too as that filter is used when transmitting any mode.
>
>
> I just removed the filter board and proceeded to check the diodes. When I went to check CR-904 which is a shunt
> diode, it's missing! The leads have been cut/sheared off even with the top of the board. Would this have been some
> kind of mod/production change or should the diode be in place no matter what?
>
>

19126. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:11:46 UTC
From: Abqcooks@...
Topic: 18933 Message: 19126

There was the Drake branded hand mic model 7072 which has a ceramic element. It was advertised as a great match for the TR4. 300 to 3khz response and gets good audio reports on my T4XC. Jim N5KY Sent from AOL Mobile Mail -----Original Message----- From: Whitebear1122 To: DrakeRadio Sent: Sat, Mar 1, 2014 09:21 PM Subject: [DrakeRadio] Drake Microphones

Out of curiosity what Drake branded microphones were sold for use the 4C twins or TR-4CW? 73, Scott WA9WFA
Finally Drake TR-4CW-RIT

Yahoo Groups Links

19127. T-4X For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:45:44 UTC
From: Steve Wedge
Topic: 19127 Message: 19127

I'm ready to start another project (and whittle down my pile some).

T-4X, s/n 13610 (R) - a fairly late number.

Nice chassis with a few spots -nice & shiny. Small abrasion near the meter window, some chips off the top cover's edge that have been touched up. Band switch detents are not as sharp as they should be but it does detent.

Strong finals - can get over 100W out on 15 and about 100 on 10. Works as it should. HV can cap was bypassed and a discrete electrolytic sits underneath doing the job now.

I've got some nice photos for those who are interested.

$200 + shipping.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19128. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:48:49 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 19128

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

19129. RE: [DrakeRadio] T-4X For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:50:09 UTC
From: Rudy Littrell
Topic: 19127 Message: 19129

Hello, Steve.I'm interested.Would love to see some pics and any idea on shipping to 75069?Regards, rl.kc5yl

To: DrakeRadio@yahoogroups.com
From: w1es1982@...
Date: Sun, 2 Mar 2014 12:45:44 -0500
Subject: [DrakeRadio] T-4X For Sale

I'm ready to start another project (and whittle down my
pile some).

T-4X, s/n 13610 (R) - a fairly late
number.

Nice chassis with a few spots -nice & shiny.
Small abrasion near the meter window, some chips off the top cover's edge that have been touched up. Band switch detents are not as sharp as they should be but it does detent.

Strong finals - can get over 100W out on 15 and about
100 on 10. Works as it should. HV can cap was bypassed and a
discrete electrolytic sits underneath doing the job now.

I've got some nice photos for those who are
interested.

$200 + shipping.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a
banana.

All my computers have my signature with various
pearls of wisdom appended thereto.

19130. off topic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 17:59:17 UTC
From: <jerrywk1@...>
Topic: 19130 Message: 19130

hello all
I have been trying to find a schematic for a Microcraft - RTTY READER
This is the early rtty decoder
I have my 2B working and I would like to fix my rtty reader

thanks
jerry
wb9jfr

19131. RE: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 18:27:14 UTC
From: Bill Jackson
Topic: 18933 Message: 19131

Thus the origin of the phrase, "Real Radios Glow in the Dark."

73 de Bill, K9RZ

19132. Re: [DrakeRadio] Drake TR-3 question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 18:40:39 UTC
From: Steve Toth
Topic: 19065 Message: 19132

I'm using one on my R4C/T4XB combo set up for transceiver mode. I'm using a "Y" connector on the INJ jack - works great.
I checked and set the read out against my Icom R70 HF receiver for accuracy.

Since they are programmable I've also used it on my Swan 250. They have five different memory settings , so I could set it up for all the receivers in my shack if I wanted to mess with re-connections or switching set ups.

-- Steve

"Technically.....the glass is ALWAYS full."

On Sat, 3/1/14, John Lawrence <ne3e001@...> wrote:

Subject: [DrakeRadio] Drake TR-3 question
To: drakeradio@yahoogroups.com
Date: Saturday, March 1, 2014, 7:35 AM

I was thinking of getting an external digital
display for My TR-3.Before the purists of the
group begin to jump all over me, my older eyes are not what
they used to be. I need a little help to read the analog
dial. I seem to to better with the digital displays on my
VHF and UHF equipment.

I was looking at these http://www.electronicspecialtyproducts.com/ Does
anyone have experience or knowledge of these?I
have an RV-4C and I'd like to keep this connected as
well if I use the DD-103.

Does anyone have a used one for sale?
Thanks!
--
John NE3E

19133. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 18:42:39 UTC
From: Jim Shorney
Topic: 18936 Message: 19133

Makes no sense to me. It should be there.

73

-Jim (Garey and I agree again, this is startinng to be a trend)
NU0C

On Sun, 02 Mar 2014 10:48:48 -0500, Garey Barrell wrote:

>I know of no mod, (or reason,) to remove CR904, unless it was shorted!! Perhaps one of our TR-7 experts knows of such a
>mod.
>
>I can only see that it would allow some signal through the 2.3 filter even when any other filter was selected. I don't
>see how that would affect your specific problem though. Sure not a good sign though, 'someone' has been 'fixing'!!! :-)
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>w9dz@... wrote:
>>
>>
>> If the 2.3 filter was bad I believe it would affect transmit too as that filter is used when transmitting any mode.
>>
>>
>> I just removed the filter board and proceeded to check the diodes. When I went to check CR-904 which is a shunt
>> diode, it's missing! The leads have been cut/sheared off even with the top of the board. Would this have been some
>> kind of mod/production change or should the diode be in place no matter what?
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,

IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19134. Re: [DrakeRadio] off topic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 19:15:24 UTC
From: Richard Knoppow
Topic: 19130 Message: 19134

Try the Green Keys list at:

http://mailman.qth.net/mailman/listinfo/greenkeys

and the manual exchange list at:

https://groups.yahoo.com/group/Manual_Exchange

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

----- Original Message -----
From: <jerrywk1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 02, 2014 9:59 AM
Subject: [DrakeRadio] off topic

>
> hello all
> I have been trying to find a schematic for a Microcraft -
> RTTY READER
> This is the early rtty decoder
> I have my 2B working and I would like to fix my rtty
> reader
>
> thanks
> jerry
> wb9jfr
>

19135. RE: [DrakeRadio] off topic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 19:56:37 UTC
From: Jerry Kimento
Topic: 19130 Message: 19135

Thanks

I will try green keys

I am a member of manual exchange no luck there

Jerry

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Richard Knoppow
Sent: Sunday, March 2, 2014 1:15 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] off topic

Try the Green Keys list at:

http://mailman.qth.net/mailman/listinfo/greenkeys

and the manual exchange list at:

https://groups.yahoo.com/group/Manual_Exchange

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@ix.netcom.com

----- Original Message -----
From: <jerrywk1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 02, 2014 9:59 AM
Subject: [DrakeRadio] off topic

>
> hello all
> I have been trying to find a schematic for a Microcraft -
> RTTY READER
> This is the early rtty decoder
> I have my 2B working and I would like to fix my rtty
> reader
>
> thanks
> jerry
> wb9jfr
>

19136. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 21:40:02 UTC
From: Whitebear1122
Topic: 18933 Message: 19136

Thanks Peter for the Drake microphone info. I've seen the Electrovoice 729 before as I sold one last Fall. I didn't know Drake had branded versions of that. I went out on GOOGLE and searched but couldn't come up with a picture of a Drake branded version. From the WB4HFN website I was able to bring up several 70's Drake catalogs and see the Drake 7075. I've never seen that before. It's funny that I sold a similar looking microphone last Fall, Turner branded, that looked similar, same base, except that the mic head looked just like the Collins/Turner SM280. Now that I think about it, the seller mentioned having a Drake microphone. I'll ping him to see if he's selling it too. He may have decided to keep it along with the L-4B.

Ok on the Shure 444, sure I know those mics. I sold one last Fall as well. I'm using my D-104 right now and it sounds fine.

73, Scott WA9WFA

19137. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 22:12:39 UTC
From: Robert Logan
Topic: 1054 Message: 19137

Well, I jiggled the pins of V9 and V10. Suddenly got tone in TUNE and SPOT, and got my usual 100-120 watts output.
Yeah! Tried unsuccesfully to replicate the non-Tone situation but it worked fine from then on.

So I switched to 20 to work a few contesters and the 6JB6 nearest the back corner flashed a bright blue inside, issued a quarter-second of smoke, and blew a fuse. Tried another AC-4 and it blew a fuse.

Pulled the tube and tested for shorts and emission. Normal shorts as indicated on my tube tester chart bit zero emission, Pulled the other final. Normal shorts and full emission.

Visibly inspected the area and measured a little. Each side looked and measured the same.

Hopefully the advice here is short and clear, as in tube blew, get another.

And it sounded so good and normal again! Growl. Bob
Sent from my iPhone

19138. T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 22:15:36 UTC
From: Robert Logan
Topic: 1054 Message: 19138

Oh, and the VOX worked again: held, variable again.bon
Sent from my iPhone

19139. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 22:50:14 UTC
From: Garey Barrell
Topic: 1054 Message: 19139

Bob -

Well, you found it! :-) It's possible one of the finals wasn't working well and the other overloaded trying to reach
'full power'.

Yes, once you get the correct Plate voltage to V9, all those problems WILL disappear, they ARE all related. (Except for
the PA!)

I wouldn't risk any more finals until you find and FIX the problem in the V9, V10 area. At least you now KNOW it's
'mechanical', not electrical. We went over the hardware 'loosen/tighten' process pretty early. Check to make sure
there isn't a wire crunched under a tube socket or terminal strip. Or a sharp edge of something 'cold flowing' through
wire insulation. Leave V10 out of the socket, and the PA tubes too. Then just dig into that V9/V10 area while
monitoring the voltage on C107.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Oh, and the VOX worked again: held, variable again.bon
> Sent from my iPhone
>
>

19140. What is the purpose of the Drake Pre-net on 40 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 23:22:34 UTC
From: <kg0mn@...>
Topic: 19140 Message: 19140

Is to a means of grabbing the frequency before the net starts or is it a way for the net controllers and others in the hierarchy to chit chat and tell each other what radio they are using? I am not this to PO anyone or to start a fight, it just seems that the time could be better served to answers Drake technical questions that don't get answered during the nets time slot. Or perhaps check people in right then so they don't have to kill better part of 20 minutes during the net itself. Then there is the fact that no one has explained what the so called pre-net is all about.
KG0MN

19141. Re: What is the purpose of the Drake Pre-net on 40 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-02 23:25:11 UTC
From: Mike Bryce
Topic: 19140 Message: 19141

in a nut shell?

Hold onto the frequency before the net starts.

It's quite possible that someone could call cq three minutes before net
time and end up in a long winded qso. And not qsy when asked by net control.

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

19142. Re: [DrakeRadio] What is the purpose of the Drake Pre-net on 40 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 00:26:12 UTC
From: Steve Wedge
Topic: 19140 Message: 19142

Think of it as the guys milling about before the club meeting.

As far as practicality, it's good that they wait until 4 EST: that broadcast QRM is incredibly nasty before 4, anyway.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: kg0mn@...
Sent: Sunday, March 02, 2014 6:22 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] What is the purpose of the Drake Pre-net on 40 meters

Is to a means of grabbing the frequency before the net starts or is it a way for the net controllers and others in the hierarchy to chit chat and tell each other what radio they are using? I am not this to PO anyone or to start a fight, it just seems that the time could be better served to answers Drake technical questions that don't get answered during the nets time slot. Or perhaps check people in right then so they don't have to kill better part of 20 minutes during the net itself. Then there is the fact that no one has explained what the so called pre-net is all about.
KG0MN

19143. Re: [DrakeRadio] T-4XC problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 00:28:57 UTC
From: Robert Logan
Topic: 1054 Message: 19143

Will do. It was mechanical, I think, because it was intermittent when I jiggled things around until it finally settled right.

Now to find my jeweler's loupe... Bob

Sent from my iPhone

On Mar 2, 2014, at 4:50 PM, Garey Barrell <k4oah@...> wrote:

Bob -

Well, you found it! :-) It's possible one of the finals wasn't working well and the other overloaded trying to reach
'full power'.

Yes, once you get the correct Plate voltage to V9, all those problems WILL disappear, they ARE all related. (Except for
the PA!)

I wouldn't risk any more finals until you find and FIX the problem in the V9, V10 area. At least you now KNOW it's
'mechanical', not electrical. We went over the hardware 'loosen/tighten' process pretty early. Check to make sure
there isn't a wire crunched under a tube socket or terminal strip. Or a sharp edge of something 'cold flowing' through
wire insulation. Leave V10 out of the socket, and the PA tubes too. Then just dig into that V9/V10 area while
monitoring the voltage on C107.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Oh, and the VOX worked again: held, variable again.bon
> Sent from my iPhone
>
>

19144. Re: [DrakeRadio] I just turned out the shack lights - WOW!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 00:36:15 UTC
From: Robert Logan
Topic: 18933 Message: 19144

Hi Dave. Nice to know a Drake guy is near by. I'm out near Manor, 5 mi SE of the 4-way stop. Great group. Bob, NZ5A

Sent from my iPhone

On Mar 2, 2014, at 8:17 AM, "David Stinson" <arc5@...> wrote:

Long ago on a beautiful day in Austin, Texas, I was sitting
in my driveway testing a big box of tubes. A young lady
student came by- she was selling something- don't remember
what it was. She asked:
"What are those?"
"Vacuum electron tubes. They're used in antique radios."
"Aren't those the things that have red fire in them
when you turn them on?"
"Yes, you could say that."
"That is so cool....."

Nice memory.

73 Dave AB5S

19145. Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 00:49:12 UTC
From: Steve Wedge
Topic: 19145 Message: 19145

Evan and others had mentioned something today on the Drake Technical Net that I'd been thinking about for some time. That is, can we substitute other tubes for the 12AX7's that are in our rigs?

The 12AX7's price has escalated in the open market due to tube audio fans' demand for them. I can see a day when they command the same price as a 6HS6 simply due to the placement on the supply/demand/cost curve.

I know that the compatible tubes have different gain characteristics, but has anyone played with using 12AU7's or 12AT7's?

I can remember seeing 12AU7's used in audio circuits in other equipment; 12AT7's were used in Tektronix vertical amplifiers quite a bit, in the pre-585 period scopes, and were used up to 25 MHz.

I know that the 12AX7 used in the transmitters has one side that's an audio amp and the other side, that's mainly just a switch. I'm sure that there are biasing issues with this side that could impact the audio response of the rig if the resting voltages aren't changed first.

I have some of these alternate tubes in a box and I'll do some experimenting, but I'm mainly looking for any feedback from anyone else who has tried either of these substitutions. Up until recently, the 12AX7 has been cheap and readily available. That is changing, and I'd like to be prepared (sort of like the 6AH6 as an alternative to the 6HS6).

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19146. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 01:19:16 UTC
From: hoggwild89
Topic: 19145 Message: 19146

Try and get your hands on an NOS Telefunken, $$Cha-Ching!

On 3/2/2014 7:49 PM, Steve Wedge wrote:
>
> Evan and others had mentioned something today on the Drake Technical
> Net that I'd been thinking about for some time. That is, can we
> substitute other tubes for the 12AX7's that are in our rigs?
> The 12AX7's price has escalated in the open market due to tube audio
> fans' demand for them. I can see a day when they command the same
> price as a 6HS6 simply due to the placement on the supply/demand/cost
> curve.
> I know that the compatible tubes have different gain characteristics,
> but has anyone played with using 12AU7's or 12AT7's?
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> equipment; 12AT7's were used in Tektronix vertical amplifiers quite a
> bit, in the pre-585 period scopes, and were used up to 25 MHz.
> I know that the 12AX7 used in the transmitters has one side that's an
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> experimenting, but I'm mainly looking for any feedback from anyone
> else who has tried either of these substitutions. Up until recently,
> the 12AX7 has been cheap and readily available. That is changing, and
> I'd like to be prepared (sort of like the 6AH6 as an alternative to
> the 6HS6).
> 73,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
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>

19147. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 01:28:14 UTC
From: William Houghton
Topic: 19145 Message: 19147

I should go look at the 20 or so 12AX7's I have in a zip-lok baggie and see what brands I have.

From: Steve Wedge <w1es1982@...>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, March 2, 2014 4:49 PM
Subject: [DrakeRadio] Using alternatives to 12AX7's

Evan and others had mentioned something today on the
Drake Technical Net that I'd been thinking about for some time. That is,
can we substitute other tubes for the 12AX7's that are in our rigs?

The 12AX7's price has escalated in the open market due
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6HS6).

73,

Steve Wedge, W1ES/4

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19148. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 01:34:26 UTC
From: vacuuminded2@...
Topic: 19145 Message: 19148

12ax7's are still plenty available and cheap, if you look for them (not on eBay). I bought a used Telefunken 11ax7 at a hamfest today for just $3.

Not to mention how CHEEP the china and Russian ones are. IMO this is no cause for alarm forcing the re-designing of our precious Drake circuitry.

Chris

Sent from my outdated iPhone wireless thingy

On Mar 2, 2014, at 7:19 PM, hoggwild89 <hoggwild89@...> wrote:

> Try and get your hands on an NOS Telefunken, $$Cha-Ching!
>
>
> On 3/2/2014 7:49 PM, Steve Wedge wrote:
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>> Evan and others had mentioned something today on the Drake Technical Net that I'd been thinking about for some time. That is, can we substitute other tubes for the 12AX7's that are in our rigs?
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>> I have some of these alternate tubes in a box and I'll do some experimenting, but I'm mainly looking for any feedback from anyone else who has tried either of these substitutions. Up until recently, the 12AX7 has been cheap and readily available. That is changing, and I'd like to be prepared (sort of like the 6AH6 as an alternative to the 6HS6).
>>
>> 73,
>>
>> Steve Wedge, W1ES/4

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>> Time flies like an arrow; fruit flies like a banana.
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>> All my computers have my signature with various pearls of wisdom appended thereto.
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19149. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 01:57:34 UTC
From: Tim Kass
Topic: 19145 Message: 19149

Chris,

I have used 12AT7 and 12AU7's in various radio receivers and audio amplifiers but not in a Drake. As I recall there was an * in the RCA Receiving Tube manual that it may not work in all circuits..

73, Tim K8WBL

On Sunday, March 2, 2014 8:34 PM, "vacuuminded2@..." <vacuuminded2@...> wrote:

12ax7's are still plenty available and cheap, if you look for them (not on eBay). I bought a used Telefunken 11ax7 at a hamfest today for just $3.

Not to mention how CHEEP the china and Russian ones are. IMO this is no cause for alarm forcing the re-designing of our precious Drake circuitry.

Chris

Sent from my outdated iPhone wireless thingy

On Mar 2, 2014, at 7:19 PM, hoggwild89 <hoggwild89@...> wrote:

>Try and get your hands on an NOS Telefunken, $$Cha-Ching!
>
>
>On 3/2/2014 7:49 PM, Steve Wedge wrote:
>
>
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>

19150. Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:04:23 UTC
From: <rochep@...>
Topic: 19150 Message: 19150

I am still having a dickens of a time getting my passband tuning right. Question #1. When the manual says to align the passband slugs "When the slugs are nearest the REAR of the receiver, the PASSBAND knob should be pointing left (as viewed from the front)". What does "nearest the rear of the receiver" mean, are the slugs sticking OUT of the assembly (toward the antenna jack) or are they retracted INTO the assembly (so they are actually pushed toward the front of the set). Sorry for the stupid question; I am a scientist and read things literally.

On my circuit board there is ONE screw (lower left looking from the front) holding the passband circuit board to the big square assembly-thing. When I turn the passband tuning knob, this circuit board actually moves forward and backward. Is this normal for the circuit board to move while I turn the passband knob? When I TIGHTEN this screw, the circuit board does not move, but the passband tuning knob just spins around ((I think it is not working). I have ordered Garey's CD, but wonder if something is amiss here (is it SUPPOSED to be a single screw that is REALLY loose?).

paul

19151. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:08:08 UTC
From: Steve Wedge
Topic: 19150 Message: 19151

Yes. The slug rack moves. It is set so that when the slugs are sticking out the back at max, the pointer should be at 9 o'clock.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 2, 2014, at 9:04 PM, <rochep@...> wrote:
>
> I am still having a dickens of a time getting my passband tuning right. Question #1. When the manual says to align the passband slugs "When the slugs are nearest the REAR of the receiver, the PASSBAND knob should be pointing left (as viewed from the front)". What does "nearest the rear of the receiver" mean, are the slugs sticking OUT of the assembly (toward the antenna jack) or are they retracted INTO the assembly (so they are actually pushed toward the front of the set). Sorry for the stupid question; I am a scientist and read things literally.
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>
> paul
>
>

19152. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:18:29 UTC
From: VE3AX/7
Topic: 18933 Message: 19152

Scott:

Glad you're enjoying the "new" rig! Just beware – 4 –lines multiply at night like rabbits! So do 7-lines!

I have used the EV–729SR and sounds fine. I don't have one of the Drake branded versions so can't send you a pic, but I am sure there are others on here that could do that.

The 7075, as Jim confirmed, is manufactured by Turner, and works really well on any of the 3 & 4-lines (and 6-line!). Easy to use too with its moulded right angle .210" plug.

I have also used the Turner +3 and it gets great reports on the audio as long as you watch the drive. The battery tends to run down quickly so I usually pull it when I am away from the shack for any length of time.

I've used amplified (very carefully!) and unamplified D-104's as well but usually save them for the Cedar Rapids boxes nowadays. I use a Shure 55 on the Drake TR-4310 – probably not the best choice but it sure looks cool!

I am using 7077's (made by Astatic) on the 5 and 7 line gear. Seem to work well though can't say I have had any "outstanding audio" comments. Mind you they haven't been in transmit mode a lot lately – just not home enough in winter.

I'd forgotten about the hand mike that Jim, N5KY, mentioned. I had remembered the 7073 hand mic for the 7-line but not the 7072. I have a small Shure hand mike with 4 pin plug that came with some 7-line gear years ago and it works well. Don't recall the model # – it's buried in a box at the moment.

Just got home from the ski hill so have to go dig up that QST ad pic of Ray Grenier, K9KHW, so I can get it scanned tomorrow.

73

Peter
VE3AX/7

From: Whitebear1122
Sent: Sunday, March 02, 2014 1:40 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

Thanks Peter for the Drake microphone info. I've seen the Electrovoice 729 before as I sold one last Fall. I didn't know Drake had branded versions of that. I went out on GOOGLE and searched but couldn't come up with a picture of a Drake branded version. From the WB4HFN website I was able to bring up several 70's Drake catalogs and see the Drake 7075. I've never seen that before. It's funny that I sold a similar looking microphone last Fall, Turner branded, that looked similar, same base, except that the mic head looked just like the Collins/Turner SM280. Now that I think about it, the seller mentioned having a Drake

microphone. I'll ping him to see if he's selling it too. He may have decided to keep it along with the L-4B.

Ok on the Shure 444, sure I know those mics. I sold one last Fall as well. I'm using my D-104 right now and it sounds fine.

73, Scott WA9WFA

19153. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:33:09 UTC
From: VE3AX/7
Topic: 19145 Message: 19153

Chris:
>>> I bought a used Telefunken 11ax7 at a hamfest today for just $3.

No wonder you got it so cheap! You're gonna run hot with that 11 volt filament!!!!

I'd be really careful about the Chinese and Russian tubes. I recently "fixed" a Fender Hot Rod Deluxe guitar amp for someone that had spent $200 buying a new set of tubes for it – one of the new 12AX7's in the Channel 1 preamp had a dead triode section – and I found that all of the Russian miniature tubes seemed to have slightly smaller pins that almost allowed the tubes to fall out of their sockets. They are upside down in that amp and Fender used a foam block to hold them in place. It's gone back to the owner now or I would put the micrometer on those pins and compare to my NOS.

73

Peter
VE3AX/7

From: vacuuminded2@...
Sent: Sunday, March 02, 2014 5:34 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Using alternatives to 12AX7's

12ax7's are still plenty available and cheap, if you look for them (not on eBay). I bought a used Telefunken 11ax7 at a hamfest today for just $3.

Not to mention how CHEEP the china and Russian ones are. IMO this is no cause for alarm forcing the re-designing of our precious Drake circuitry.

Chris

Sent from my outdated iPhone wireless thingy

On Mar 2, 2014, at 7:19 PM, hoggwild89 <hoggwild89@...> wrote:

Try and get your hands on an NOS Telefunken, $$Cha-Ching!

On 3/2/2014 7:49 PM, Steve Wedge wrote:

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73,

Steve Wedge, W1ES/4

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[Non-text portions of this message have been removed]

19154. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:35:21 UTC
From: Garey Barrell
Topic: 19145 Message: 19154

Steve -

Not very well..... The 12AX7 is a High u triode, The T is a High u triode (not as) and the U is a Medium u.

The other pertinent facts are
Amp - u
T - 60 - 15k
U - 20 - 3k
X - 100 - 80k

There's a reason they are used 'everywhere'! :-) Add in VERY low Hum and Noise specs. They're used in the T-4X(any)
transmitters as MIC amps, a CAR OSC and an ALC amp. Not trivial circuit changes. Best bet is to pick them up where you
find them before they go even higher.

You 'could' build an adapter that would hold two 6AV6s!

Save the 12AU7 and 12AT7 for your VTVM.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Steve Wedge wrote:
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19155. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:44:29 UTC
From: Doug
Topic: 19145 Message: 19155

I recently purchased some new production Russian 12AX7 tubes very reasonably. For ham radio use they should be just fine. In a recording studio that may be another story.

Sent from my iPhone

> On Mar 2, 2014, at 21:35, Garey Barrell <k4oah@...> wrote:
>
> Steve -
>
> Not very well..... The 12AX7 is a High u triode, The T is a High u triode (not as) and the U is a Medium u.
>
> The other pertinent facts are
> Amp - u
> T - 60 - 15k
> U - 20 - 3k
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> find them before they go even higher.
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> You 'could' build an adapter that would hold two 6AV6s!
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> Save the 12AU7 and 12AT7 for your VTVM.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >
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19156. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:45:47 UTC
From: Garey Barrell
Topic: 19150 Message: 19156

Paul -

Yes, the board moves a little to accommodate the movement of the switch wafer. The center shaft is the Passband
control, and is 1/8" in diameter. There is a small fiber shim inside the knob that is 1/8" id and 1/4" od. It is slit
longitudinally to allow it to compress on the smaller shaft when the knob setscrew is tightened. The insert MUST be in
the knob with the slit at right angles to the setscrew to allow it to compress. If it's NOT this way you can tighten
the setscrew until the knob cracks and it will still slip!

Yes, the slugs are confusing. You want to turn the Passband knob so the slugs extend as far OUT of the housing, away
from the front panel, as possible. Do NOT adjust the center screw on the back panel of the housing, yet.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I am still having a dickens of a time getting my passband tuning right. Question #1. When the manual says to align the
> passband slugs "When the slugs are nearest the REAR of the receiver, the PASSBAND knob should be pointing left (as
> viewed from the front)". What does "nearest the rear of the receiver" mean, are the slugs sticking OUT of the assembly
> (toward the antenna jack) or are they retracted INTO the assembly (so they are actually pushed toward the front of the
> set). Sorry for the stupid question; I am a scientist and read things literally.
>
> On my circuit board there is ONE screw (lower left looking from the front) holding the passband circuit board to the
> big square assembly-thing. When I turn the passband tuning knob, this circuit board actually moves forward and
> backward. Is this normal for the circuit board to move while I turn the passband knob? When I TIGHTEN this screw, the
> circuit board does not move, but the passband tuning knob just spins around ((I think it is not working). I have
> ordered Garey's CD, but wonder if something is amiss here (is it SUPPOSED to be a single

screw that is REALLY loose?).
>
> paul
>
>

19157. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 02:55:54 UTC
From: Garey Barrell
Topic: 18933 Message: 19157

Peter -

Don't forget to use the 'Descreen' option on your scanner!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

VE3AX/7 wrote:
> Just got home from the ski hill so have to go dig up that QST ad pic of Ray Grenier, K9KHW, so I can get it scanned
> tomorrow.
> 73
> Peter
> VE3AX/7
>

19158. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:18:40 UTC
From: Evan Rolek
Topic: 19145 Message: 19158

Steve and others,

As a new ham, I often switched to the 12AT7 or 12AU7 from the 12AX7 due to reduced gain and thus less prone to hum and stray pickup. Having too much gain is not always a good thing and can lead to undesirable results. A relevant concern is the circuit design though. If gain is an issue, then yes, by all means use a 12AX7 if that is the preferred alternative, cost aside.

73,

Evan, K9SQG

-----Original Message-----
From: Steve Wedge <w1es1982@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 2, 2014 7:49 pm
Subject: [DrakeRadio] Using alternatives to 12AX7's

Evan and others had mentioned something today on the Drake Technical Net that I'd been thinking about for some time. That is, can we substitute other tubes for the 12AX7's that are in our rigs?

The 12AX7's price has escalated in the open market due to tube audio fans' demand for them. I can see a day when they command the same price as a 6HS6 simply due to the placement on the supply/demand/cost curve.

I know that the compatible tubes have different gain characteristics, but has anyone played with using 12AU7's or 12AT7's?

I can remember seeing 12AU7's used in audio circuits in other equipment; 12AT7's were used in Tektronix vertical amplifiers quite a bit, in the pre-585 period scopes, and were used up to 25 MHz.

I know that the 12AX7 used in the transmitters has one side that's an audio amp and the other side, that's mainly just a switch. I'm sure that there are biasing issues with this side that could impact the audio response of the rig if the resting voltages aren't changed first.

I have some of these alternate tubes in a box and I'll do some experimenting, but I'm mainly looking for any feedback from anyone else who has tried either of these substitutions. Up until recently, the 12AX7 has been cheap and readily available. That is changing, and I'd like to be prepared (sort of like the 6AH6 as an alternative to the 6HS6).

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19159. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:26:23 UTC
From: Steve Wedge
Topic: 19145 Message: 19159

Wow - lots of input. That's why I love posting stuff like this to this group.

Of course, I was too lazy to get out the receiving tube manual (where the heck is it, anyway?). I did not, however, think about the hum issues - a real issue when you're talking about mic amps.

I do still have enough good 12AX7's; I'm merely trying to plan against the day when they'll be harder to come by.

Re the pair of 6AV6's: I think I'd hide a couple of FETs under the chassis before I'd punch another hole in it!

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Sunday, March 02, 2014 9:35 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Using alternatives to 12AX7's

Steve -

Not very well..... The 12AX7 is a High u triode, The T is a High u triode (not as) and the U is a Medium u.

The other pertinent facts are
Amp - u
T - 60 - 15k
U - 20 - 3k
X - 100 - 80k

There's a reason they are used 'everywhere'! :-) Add in VERY low Hum and Noise specs. They're used in the T-4X(any)
transmitters as MIC amps, a CAR OSC and an ALC amp. Not trivial circuit changes. Best bet is to pick them up where you
find them before they go even higher.

You 'could' build an adapter that would hold two 6AV6s!

Save the 12AU7 and 12AT7 for your VTVM.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Steve Wedge wrote:
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> available. That is changing, and I'd like to be prepared (sort of like the 6AH6 as an alternative to the 6HS6).
>

19160. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:30:55 UTC
From: Jim Shorney
Topic: 18933 Message: 19160

On Sun, 2 Mar 2014 18:18:29 -0800, VE3AX/7 wrote:

>I have also used the Turner +3 and it gets great reports on the audio as long as you watch the drive. The battery tends to run down quickly so I usually pull it when I am away from the shack for any length of time.

There might be a problem there. I think I've changed the battery in my +3 once since I started using it. But I don't remember for sure if I did or not. Check the wiring on the leaf switch, it should be turning the battery off when unkeyed.

As a general rule I detest amplified mics. They are usually not necessary and can create more problems than they solve.* There is not a D-104 T-UGx stand in the house here that still has the amplifier connected. The unique thing about the Turner +3 is it has a real compression amp. It can be of some benefit with radios that don't have any "processing" built in.

(*Unless the system is DESIGNED to require a premplified mic.)

73

-Jim
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19161. TR-4C PA Neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:32:36 UTC
From: Steve VK2SJA
Topic: 18933 Message: 19161

Hi Chaps,

Now that my *new* TR-4C is "glowing" and "singing" again. I'm looking towards doing the alignments. In particular the PA Neutralization. I've been scouring the archives. And it appears that if you already have the rig opened up for surgery, that the "cold screen-grid" approach is actually the easiest method. So long as your careful about safety (always) and treat gently the feed-through cap so as not to break it.

I've put together my own "procedure" for doing this by reading multiple previous posts to this group. Can you guys in the "know" have a read of my procedure below, peppered with questions, and let me know if I'm about to do anything stupid. i.e. have I missed something obvious in my ignorance.

Remember that "I know nothing about tubes/valves"!!

Thanks!

73, Steve.

----- TR-4C PA tube neutralization procedure: -----

Cold screen-grid method:-

1a. Does the IF neutralization procedure need to be done *before* the PA neutralization or are they completely independent adjustments?

1. Properly tune the radio transmitter for output on 28.8Mhz (plate dipped correctly).
Why this frequency? Just because it is pretty high
and available from one of the stock crystals?
Is this just to get you "close" to the final adjustment point?
Is this step really required?
What if the radio runs away in oscillation while your trying
to tune properly for this frequency? Drop to a lower band say 15m and
try again there?
Where should we adjust/leave the XTMR GAIN control at this point? 0.2A on
plate meter or does it not matter because we are disconnecting the
screen-grid supply?
2. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
3. Disconnect the +250VDC screen-grid supply at the bulk head feed through.
**Be very careful with the feed-through caps. They can break easy enough
if your rough with them.**
Which side of the feed-through is best to disconnect?
4. Very carefully *insulate* disconnected +250VDC wire so that it can't
harm you or the rig! ***ZAPPO SHOCKO***
5. Connect rig to dummy-load via modified PL259 "T-piece" aka RF-Sniffer

(centre pin ground down).
6. Connect scope with 1:1 probe to RF-Sniffer port on modified PL259
"T-piece".
Can you use a RF power meter here instead?
7. Using a *PLASTIC* non-conductive adjustment tool only! Adjust C76 for
dip (minimum RF output on scope). ***ZAPPO SHOCKO***
C76 is normally hot with +250VDC!
Is C76 still hot after disconnection of +250VDC at the feed-through?
Aside from the critical safety issue does a metallic adjustment tool
throw out the adjustment point? Perhaps not. It's a capacitor not an
inductor.
8. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
9. Re-connect the +250VDC screen-grid supply at the bulk head feed through.
10. Job done.
What (if any) additional sanity-check should be done at this point?
Checked the dip vs. max output on 10m?

19162. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:51:13 UTC
From: VE3AX/7
Topic: 18933 Message: 19162

OK Garey - got the pic. Snowing to beat the band out there tonight! Normally the golf courses are starting to open up around here by early March.

I'll try several different settings on the scanner to see what comes up. Hopefully it has the "descreen" option. Should – it's a beast.

73

Peter
VE3AX/7

From: Garey Barrell
Sent: Sunday, March 02, 2014 6:55 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

Peter -

Don't forget to use the 'Descreen' option on your scanner!!

73, Garey - K4OAH
Glen Allen, VA

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> Just got home from the ski hill so have to go dig up that QST ad pic of Ray Grenier, K9KHW, so I can get it scanned
> tomorrow.
> 73
> Peter
> VE3AX/7
>

19163. Re: [DrakeRadio] What is the purpose of the Drake Pre-net on 40 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 03:52:01 UTC
From: Evan Rolek
Topic: 19140 Message: 19163

Fellow Drake Enthusiasts,

To my knowledge, there is no defined, official purpose for the pre-net before the Drake Technical Net. Just observing the QSOs in the time frame before the net, it appears to be a friendly, informal discussion of various topics, most being related to Drake ham equipment. Too, it serves as an informal "heads up" to others tuning across the band that there is a net soon to follow that emphasizes helping people with issues related to Drake equipment. Sometimes technical issues are addressed during the pre-net and at other times they are delayed until the formal net due to the availability of the respective experts. It does help too for logging in stations before the formal net and thus reduces the size of some of the pileups, hi hi.

The fact that the pre-net has not been "defined" suggests that there is no formal, required agenda. To me it is just a group of Drake enthusiasts getting together for some enjoyable conversation. I've often listened to that frequency in the background and will sometimes hear a person say "Is the frequency in use?" If convenient, I respond and say that no, the frequency is not in use, indicate what time a net starts (not that we own the frequency or time slot), and then invite them to join the net; this is in stark contrast to certain other "dead" frequencies that result in a response akin to "Nobody is talking but we're holding the frequency in case somebody from the XYZ organization wants to use it". So no, I would not say anybody is trying to grab the frequency. There have been times where the foreign broadcast station occupies the frequency, when it is being used by hams in an ongoing QSO, etc. and so we accommodate the situation by going to an alternate frequency.

Finally, if anybody has constructive criticism, suggestions, questions, etc. they should feel free to contact any of the net controllers and make their thoughts known.

Have a great week, stay warm, stay dry. Spring will eventually get here so do your outside antenna work now before you get bogged down with yard work, hi hi.

73,

Evan, K9SQG

-----Original Message-----
From: kg0mn <kg0mn@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 2, 2014 6:22 pm
Subject: [DrakeRadio] What is the purpose of the Drake Pre-net on 40 meters

Is to a means of grabbing the frequency before the net starts or is it a way for the net controllers and others in the hierarchy to chit chat and tell each other what radio they are using? I am not this to PO anyone or to start a fight, it just seems that the time could be better served to answers Drake technical questions that don't get answered during the nets time slot. Or perhaps check people in right then so they don't have to kill better part of 20 minutes during the net itself. Then there is the fact that no one has explained what the so called pre-net is all about.

KG0MN

19164. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 04:08:43 UTC
From: <rochep@...>
Topic: 19150 Message: 19164

thanks for the info about the slugs.
What is the point of the screw holding the circuit board "in" if it is not tight? Why not just let the board float there with no screw? How loose should it be?
p

19165. RE: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 09:50:18 UTC
From: Ian Reeve
Topic: 19145 Message: 19165

Hi Steve,
The ECC83 or 12AX7 always have been very popular with valve audio amplifier manufacturers and with the resurgence of interest in valve amps are back in demand.
The main difference between this and the ECC81 or ECC82 (12AU7/12AT7) is gain.

The ECC83 is a high gain double triode whereas the other two are lower gain.
That said it depends on the circuit and you may find that the lower gain ones are adequate.
Here in the UK, they are plentiful at our Radio Rallies/Hamfests and there are still good ones available for a £1 or so if you strike lucky.
Valve oscilloscopes used them, VVM's used them, valve tape recorders were bound to have at least one in.

The Plus side is there are a lot of pin equivalents out there but I would avoid the Chinese ones and eBay where the prices are silly. the ECC83 is of course the British one, the 12AX7 the American equivalent.
Mullard or Brimar are consistantly good but beware folks pulling low emission valves and selling them.

Russian tubes are usually high quality and can be relied upon.

Good Luck in your search. If you find 'em buy a few!

Regards

Ian

Ian Reeve MØIDR

To: DrakeRadio@yahoogroups.com
From: w1es1982@...m
Date: Sun, 2 Mar 2014 19:49:12 -0500
Subject: [DrakeRadio] Using alternatives to 12AX7's

Evan and others had mentioned something today on the
Drake Technical Net that I'd been thinking about for some time. That is,
can we substitute other tubes for the 12AX7's that are in our rigs?

The 12AX7's price has escalated in the open market due
to tube audio fans' demand for them. I can see a day when they command the
same price as a 6HS6 simply due to the placement on the supply/demand/cost
curve.

I know that the compatible tubes have different gain
characteristics, but has anyone played with using 12AU7's or
12AT7's?

I can remember seeing 12AU7's used in audio circuits in
other equipment; 12AT7's were used in Tektronix vertical amplifiers quite a bit,

in the pre-585 period scopes, and were used up to 25 MHz.

I know that the 12AX7 used in the transmitters has one
side that's an audio amp and the other side, that's mainly just a
switch. I'm sure that there are biasing issues with this side that
could impact the audio response of the rig if the resting voltages aren't
changed first.

I have some of these alternate tubes in a box and
I'll do some experimenting, but I'm mainly looking for any feedback from anyone
else who has tried either of these substitutions. Up until recently, the
12AX7 has been cheap and readily available. That is changing, and I'd like
to be prepared (sort of like the 6AH6 as an alternative to the
6HS6).

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a
banana.

All my computers have my signature with various
pearls of wisdom appended thereto.

19166. wtb; FS-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 12:56:39 UTC
From: <kc9kuh@...>
Topic: 19166 Message: 19166

i am looking for a fs-4 for my B-line

19167. Re: [DrakeRadio] TR-4C PA Neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 13:32:28 UTC
From: Steve Wedge
Topic: 18933 Message: 19167

On the TR-3 and 4, you can disconnect the wire on the side outside the PA compartment, which is easier that removing and possibly breaking the RF choke.

I've found no change in the scope display when using a metal screwdriver blade.

Yes, do disconnect the ps before going in. Be sure the other caps within are also discharged.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 2, 2014, at 10:32 PM, "Steve VK2SJA" <vk2sja@...> wrote:
>
> Hi Chaps,
>
> Now that my *new* TR-4C is "glowing" and "singing" again. I'm looking
> towards doing the alignments. In particular the PA Neutralization. I've
> been scouring the archives. And it appears that if you already have the
> rig opened up for surgery, that the "cold screen-grid" approach is
> actually the easiest method. So long as your careful about safety (always)
> and treat gently the feed-through cap so as not to break it.
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> I've put together my own "procedure" for doing this by reading multiple
> previous posts to this group. Can you guys in the "know" have a read of my
> procedure below, peppered with questions, and let me know if I'm about to
> do anything stupid. i.e. have I missed something obvious in my ignorance.
>
> Remember that "I know nothing about tubes/valves"!!
>
> Thanks!
>
> 73, Steve.
>
> ----- TR-4C PA tube neutralization procedure: -----
>
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>
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> neutralization or are they completely independent adjustments?
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> 1. Properly tune the radio transmitter for output on 28.8Mhz (plate dipped
> correctly).
> Why this frequency? Just because it is pretty high
> and available from one of the stock crystals?
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> throw out the adjustment point? Perhaps not. It's a capacitor not an
> inductor.
> 8. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
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> 10. Job done.
> What (if any) additional sanity-check should be done at this point?
> Checked the dip vs. max output on 10m?
>
>

19168. Re: [DrakeRadio] Using alternatives to 12AX7's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 13:59:08 UTC
From: Garey Barrell
Topic: 19145 Message: 19168

Oh, I wasn't talking about another hole.......... Do it like the early, tube based op amps.... A housing with two
sockets on top of one plug. !

73, Garey - K4OAH
Glen Allen, VA

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> *Sent:* Sunday, March 02, 2014 9:35 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] Using alternatives to 12AX7's
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> Steve -
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> >
>

19169. Re: [DrakeRadio] TR-4C PA Neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 14:21:39 UTC
From: Garey Barrell
Topic: 18933 Message: 19169

Steve -

1a. Totally unrelated.

1. Start with C76 about mid-range. You won't get oscillation unless there is some other problem. Turn GAIN to
minimum. The higher the frequency, the sharper the adjustment point. Not critical. Just the higher, the more accurate
the adjustment.

2. Yep!

3. I prefer 'outside'. 'INside' is 'part of the circuit' RF wise.

4. Yes.

5. Leave dummy load connected.

6. NO power here.

7. You are adjusting a very small capacitor. Metal tool ADDS capacitance. Fiber or plastic. No 'anti-static'.
Adjust for minimum!

8. Yes.

9. Yes.

10. Wouldn't hurt just for confirmation, not necessary.

73, Garey - K4OAH
Glen Allen, VA

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>
> Now that my *new* TR-4C is "glowing" and "singing" again. I'm looking
> towards doing the alignments. In particular the PA Neutralization. I've
> been scouring the archives. And it appears that if you already have the
> rig opened up for surgery, that the "cold screen-grid" approach is
> actually the easiest method. So long as your careful about safety (always)
> and treat gently the feed-through cap so as not to break it.
>
> I've put together my own "procedure" for doing this by reading multiple

> previous posts to this group. Can you guys in the "know" have a read of my
> procedure below, peppered with questions, and let me know if I'm about to
> do anything stupid. i.e. have I missed something obvious in my ignorance.
>
> Remember that "I know nothing about tubes/valves"!!
>
> Thanks!
>
> 73, Steve.
>
>
>
> ----- TR-4C PA tube neutralization procedure: -----
>
> Cold screen-grid method:-
>
> 1a. Does the IF neutralization procedure need to be done *before* the PA
> neutralization or are they completely independent adjustments?
>
> 1. Properly tune the radio transmitter for output on 28.8Mhz (plate dipped
> correctly).
> Why this frequency? Just because it is pretty high
> and available from one of the stock crystals?
> Is this just to get you "close" to the final adjustment point?
> Is this step really required?
> What if the radio runs away in oscillation while your trying
> to tune properly for this frequency? Drop to a lower band say 15m and
> try again there?
> Where should we adjust/leave the XTMR GAIN control at this point? 0.2A on
> plate meter or does it not matter because we are disconnecting the
> screen-grid supply?
> 2. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
> 3. Disconnect the +250VDC screen-grid supply at the bulk head feed through.
> **Be very careful with the feed-through caps. They can break easy enough
> if your rough with them.**
> Which side of the feed-through is best to disconnect?
> 4. Very carefully *insulate* disconnected +250VDC wire so that it can't
> harm you or the rig! ***ZAPPO SHOCKO***
> 5. Connect rig to dummy-load via modified PL259 "T-piece" aka RF-Sniffer
> (centre pin ground down).
> 6. Connect scope with 1:1 probe to RF-Sniffer port on modified PL259
> "T-piece".
> Can you use a RF power meter here instead?
> 7. Using a *PLASTIC* non-conductive adjustment tool only! Adjust C76 for
> dip (minimum RF output on scope). ***ZAPPO SHOCKO***
> C76 is normally hot with +250VDC!
> Is C76 still hot after disconnection of +250VDC at the feed-through?
> Aside from the critical safety issue does a metallic adjustment tool
> throw out the adjustment point? Perhaps not. It's a capacitor not an
> inductor.

> 8. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
> 9. Re-connect the +250VDC screen-grid supply at the bulk head feed through.
> 10. Job done.
> What (if any) additional sanity-check should be done at this point?
> Checked the dip vs. max output on 10m?
>
>
>
>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>
>
>
> -----
> No virus found in this message.
> Checked by AVG - www.avg.com
> Version: 2014.0.4335 / Virus Database: 3705/7143 - Release Date: 03/02/14
>
>

19170. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 14:28:54 UTC
From: Garey Barrell
Topic: 18933 Message: 19170

Peter -

Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

VE3AX/7 wrote:
>
>
> OK Garey - got the pic. Snowing to beat the band out there tonight! Normally the golf courses are starting to open up
> around here by early March.
> I'll try several different settings on the scanner to see what comes up. Hopefully it has the "descreen" option.
> Should – it's a beast.
> 73
> Peter
> VE3AX/7
> *From:* Garey Barrell <mailto:k4oah@...>
> *Sent:* Sunday, March 02, 2014 6:55 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] Drake Microphones
>
> Peter -
>
> Don't forget to use the 'Descreen' option on your scanner!!
>

19171. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 14:30:35 UTC
From: Steve Wedge
Topic: 19150 Message: 19171

The screw in the back changes the central position of the slug rack. The adjustment of the passband should be such that you have the same response at either sideband.

After peaking the slugs (which sets them all to the same frequency) you may need to adjust the overall position of the entire rack. The screw does this and is usually set by ear, though you could use more sophisticated methods.

So, basically, you set the position of the knob, relative to the shaft, by backing the slugs out fully, move the pbt to centre and peak the individual slugs, then adjust the actual response, relative to position of the knob.

HTH,

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 2, 2014, at 11:08 PM, <rochep@...> wrote:
>
> thanks for the info about the slugs.
> What is the point of the screw holding the circuit board "in" if it is not tight? Why not just let the board float there with no screw? How loose should it be?
> p
>
>

19172. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 14:37:53 UTC
From: Garey Barrell
Topic: 19150 Message: 19172

Paul -

If no screw, only the wires would prevent the board from turning WITH the switch frame, rotating the board instead of
changing the switch setting. Just enough to keep it from turning with the switch frame! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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>
> thanks for the info about the slugs.
> What is the point of the screw holding the circuit board "in" if it is not tight? Why not just let the board float
> there with no screw? How loose should it be?
> p
>
>

19173. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 14:48:29 UTC
From: Jim Wiley
Topic: 18933 Message: 19173

It's NOT snowing here! Nyah! Nyah! Nyah!

Not only that, we are having one of our warmest winters on record.

- Jim, KL7CC (Anchorage, AK)

On 3/3/2014 5:28 AM, Garey Barrell wrote:
>
> Peter -
>
> Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

19174. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 15:03:35 UTC
From: VE3AX/7
Topic: 18933 Message: 19174

Snow is not such a bad thing when you spend 4 days/week at a ski hill!

Tough skiing all that powder! Tough to get any Drake projects (or any other for that matter) done, but I'll worry about that in 6 weeks.

One thing about posting Ray's pic – I have e-mailed him (hopefully) at West Mountain Radio to ask his permission to post that pic. Got thinking about that last night as I lay awake with a sore throat and earache half the night. I felt it was the right thing to do before posting it here. With luck my e-mail will reach him and we will get his permission.

73
Peter
VE3AX/7

From: Jim Wiley
Sent: Monday, March 03, 2014 6:48 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

It's NOT snowing here! Nyah! Nyah! Nyah!

Not only that, we are having one of our warmest winters on record.

- Jim, KL7CC (Anchorage, AK)

On 3/3/2014 5:28 AM, Garey Barrell wrote:

Peter -

Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)

73, Garey - K4OAH
Glen Allen, VA

19175. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 15:24:38 UTC
From: Garey Barrell
Topic: 18933 Message: 19175

So YOU'RE the one who got all the 'Global Warming'!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Wiley wrote:
>
>
> It's NOT snowing here! Nyah! Nyah! Nyah!
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>
> - Jim, KL7CC (Anchorage, AK)
>
>
> On 3/3/2014 5:28 AM, Garey Barrell wrote:
>>
>> Peter -
>>
>> Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>

19176. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 16:15:28 UTC
From: Henry L. Dorkin
Topic: 19176 Message: 19176

This message was originally HTML formatted. View in a HTML capable client to see the original version.\r\n\r\n This is a family oriented website. Please remember that "snow" is a four letter word.....

de WM1V
Hank

---- Original Message ----
From: "Garey Barrell" k4oah@mindspring.com
Sent: 3/3/2014 10:24:26 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

So YOU'RE the one who got all the 'Global Warming'!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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www.k4oah.com

Jim Wiley wrote:

It's NOT snowing here! Nyah! Nyah! Nyah!

Not only that, we are having one of our warmest winters on record.

- Jim, KL7CC (Anchorage, AK)

On 3/3/2014 5:28 AM, Garey Barrell wrote:

Peter -

Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)

73, Garey - K4OAH
Glen Allen, VA

19177. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 16:17:37 UTC
From: Joe - W7RKN
Topic: 18933 Message: 19177

Anchorage, eh wot?!! Going to be there for a conference at the end of June. I will have my TH-D72A with me..Any reason to being my 220 or 900 handheld? (That reminds me, I won't need a passport if I fly in Anchorage, right? I mean..we aren't going to land in Canada so I should be ok with my credit card passport. (I had better check)

Joe - W7RKN
----- Original Message -----
From: Jim Wiley
Subject: Re: [DrakeRadio] Drake Microphones

It's NOT snowing here! Nyah! Nyah! Nyah!

Not only that, we are having one of our warmest winters on record.

- Jim, KL7CC (Anchorage, AK)

19178. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 16:19:58 UTC
From: Joe - W7RKN
Topic: 18933 Message: 19178

Hey! I love snow..the more the merrier! (Just wish we had some..this draught is getting worrisome!) It is said that if the winters don't start delivering the average amount of snow, the Colorado River is going to run dry by 2021! YIKES!

Joe - W7RKN
----- Original Message -----
From: Henry L. Dorkin
Subject: Re: [DrakeRadio] Drake Microphones

This is a family oriented website. Please remember that "snow" is a four letter word.....

de WM1V
Hank

19179. Want to buy wattmeter element

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 16:51:27 UTC
From: Joe W2KJ
Topic: 19091 Message: 19179

>> Howdy Gang:
>>
>> Want to buy either a Bird 250H 250W 2-30Mhz element or a Coaxial Dynamics CDI 82006 250W 2-30Mhz Element must be in excellent physical and operational condition.
>>
>> Please send picture of actual element, along with the price and shipping to NC 28443 in email.
>>
>> Many thanks and and keep the Drakes lit up.
>>
>> 73, Joe W2KJ
>

19180. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 17:25:03 UTC
From: <rochep@...>
Topic: 19150 Message: 19180

Thanks for the info, I still have work to do. With the passband pointer to the left there is a "whoosh" sound, tuning THROUGH the center position I loose the whoosh, and then tuning to the right I get the whoosh again. That sounds right. About the same pitch at 9 o'clock and 3 o'clock. I don't like the tone of the whoosh, so far I like to tone when centered (but I suspect it is not set correctely).

What is strange is that on 20 meters (USB) the talking is intelligible only when set to the U position (I guess that makes sense). But on 40 meters and 80 meters (LSB) the talking is intelligible when set to the L position OR the U position. This clearly does not seem right.

I'll get there, I am able to hear and work DX, that is the point.

paul

19181. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 17:37:54 UTC
From: H. Bruce Smith
Topic: 18933 Message: 19181

Joe to be on the safe side I think you should go for a pass port. One never can tell when some passenger decides to high jack the aircraft, pilots are even doing it now. Remember 9 - 11 when us good hearted Canadians allowed the planes that were destined to land in east coast American airports, they all ended up landing in Saint Johns NFLD and Moncton N.B. You no doubt know that you used to be able to use your birth certificate or drivers license, but not any more.

Bruce VE1ANH

On Monday, March 3, 2014 12:16:03 PM, Henry L. Dorkin <dorkinh@...> wrote:

This is a family oriented website. Please remember that "snow" is a four letter word.....

de WM1V
Hank

---- Original Message ----
From: "Garey Barrell" <k4oah@mindspring.com>
Sent: 3/3/2014 10:24:26 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

So YOU'RE the one who got all the 'Global Warming'!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Wiley wrote:
>
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>
> - Jim, KL7CC (Anchorage, AK)
>
>
> On 3/3/2014 5:28 AM, Garey Barrell wrote:
>>
>> Peter -
>>
>> Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)

>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>

19182. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 17:49:01 UTC
From: Garey Barrell
Topic: 19150 Message: 19182

Paul -

If you tune in the Calibrator, in the 2.4 kHz B/W, and tune to zerobeat, the S-Meter should peak at the center of the
line between USB and LSB with 2.4 at the end! If you tune in an SSB signal, you should hear USB or LSB on the dot's at
either end of the 2.4 line,

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Thanks for the info, I still have work to do. With the passband pointer to the left there is a "whoosh" sound, tuning
> THROUGH the center position I loose the whoosh, and then tuning to the right I get the whoosh again. That sounds
> right. About the same pitch at 9 o'clock and 3 o'clock. I don't like the tone of the whoosh, so far I like to tone
> when centered (but I suspect it is not set correctely).
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> What is strange is that on 20 meters (USB) the talking is intelligible only when set to the U position (I guess that
> makes sense). But on 40 meters and 80 meters (LSB) the talking is intelligible when set to the L position OR the U
> position. This clearly does not seem right.
>
> I'll get there, I am able to hear and work DX, that is the point.
>
> paul

19183. Re: Anchorage trip

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 17:58:44 UTC
From: Jim Wiley
Topic: 18933 Message: 19183

Joe -

There are no 900 MHz repeaters in the area. There is some 220 activity, and a repeater, but it is down more than it is up. KL6M operates on 220 simplex fairly often.

Assuming you fly from a USA airport to Anchorage, no passport will be needed.

One time I was on a flight from Minneapolis to Anchorage that had to stop in Edmonton, Canada for additional fuel, the passengers were not permitted to leave the aircraft, so passports were not an issue. The reason we had to stop was that it was so hot in Minneapolis (100+ degrees) that the plane could not take on enough fuel to make a non-stop trip. This was because the warm air meant an extended take-off run, so the plane had to be lighter than normal. (cool air provides much more lift than warm air)

If you plan to have time for some sight-seeing, I can suggest a couple of great day-trips.

- Jim, KL7CC

On 3/3/2014 7:17 AM, Joe - W7RKN wrote:
>
> Anchorage, eh wot?!! Going to be there for a conference at the end of
> June. I will have my TH-D72A with me..Any reason to being my 220 or
> 900 handheld? (That reminds me, I won't need a passport if I fly in
> Anchorage, right? I mean..we aren't going to land in Canada so I
> should be ok with my credit card passport. (I had better check)
> Joe - W7RKN
>

19184. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 17:58:50 UTC
From: docbrent
Topic: 18933 Message: 19184

On Jim's recommendation, I too am using a Turner +3 on my TR-7. Audio reports are invariably very good. Sometimes embarrassingly effusive.

I have to keep the mic gain down just below 9 o'clock. When I use the my Drake speech compressor, I can only go to about 3db before it gets harsh, but I haven't really tested it out thoroughly. That was going by the reports of a local, not a distant station pulling me out of the noise.

Just one battery for a couple of years now, by the way.

I also have a Turner Super Sidekick, obtained before the +3. I haven't used it much. I had one very negative report -- indeed, it was more of a lecture, from someone who hated the fact I was using a CB mic on a ham radio. Maybe he'd have sung a different tune if I told him it was a Heil or something more "dignified."

Maybe time for a side-by-side. The Super Side Kick is a better match to the TR-7 colour scheme, if you can overlook the blingy chrome at the mouth piece.

I've looked high and low for a +3B. I had one before, but sold it with my old TS-520. It was that mic that cinched the deal, by the way, when I was demo-ing the radio. It made a "holy cow" improvement over the stock MC-50.

I'm sure it was these microphones that inspired the Byrds, in their classic rendition of the Pete Seger song . . . (everyone sing along now) "To everything, Turner, Turner, Turner."

73 de
Brenton Crowhurst, VE6IE

----- Original Message -----

From: "Jim Shorney" <jshorney@...>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, March 2, 2014 8:30:55 PM
Subject: Re: [DrakeRadio] Drake Microphones

On Sun, 2 Mar 2014 18:18:29 -0800, VE3AX/7 wrote:

>I have also used the Turner +3 and it gets great reports on the audio as long as you watch the drive. The battery tends to run down quickly so I usually pull it when I am away from the shack for any length of time.

There might be a problem there. I think I've changed the battery in my +3 once since I started using it. But I don't remember for sure if I did or not. Check the wiring on the leaf switch, it should be turning the battery off when unkeyed.

As a general rule I detest amplified mics. They are usually not necessary and can create more problems than they solve.* There is not a D-104 T-UGx stand in the house here that still has the amplifier connected. The unique thing about the Turner +3 is it has a real compression amp. It can be of some benefit with radios that don't have any "processing" built in.

(*Unless the system is DESIGNED to require a premplified mic.)

73

-Jim
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19185. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 18:01:38 UTC
From: Joe - W7RKN
Topic: 18933 Message: 19185

My wife got the paper passport..I only applied for the card version....What was interesting is that we spent 5 weeks in B.C. this past summer. We borrowed a float plane (Based in B.C.) and flew up to this little, remote lake where we honeymooned 40 years ago. (Only way in is to hike or fly..no roads anywhere near.) and spent 2 weeks there, before returning to Vancouver area, where we spent another 3 weeks sightseeing..the Island, and places of interest in and around Vancouver. (My favorite, and has been since the first time I was there, 40 years ago, is the Bloedel Conservatory in Queen Elizabeth Park. Then its down into the gardens for a delightful 5 hour stroll..well for me.) Not once, while in B.C. were we ever asked for our Passports...only when entering Canada and entering back into the United States at Blaine, Washington. In fact we weren't ever asked for an id when we refueled the plane..they just took our credit card, ran it, and said thank-you! Go figger!

Oh well..BTW..if a plane had to make some sort of emergency landing in Canada, they wouldn't push the passport issue...just make us stay in the terminal, or in the plane (UGH!) But still...I guess I need to go down to the Post Office and apply for the paper passport, then not worry about anything.

Joe - W7RKN

---- Original Message -----
From: H. Bruce Smith
To: DrakeRadio@yahoogroups.com
Sent: Monday, March 03, 2014 9:37 AM
Subject: Re: [DrakeRadio] Drake Microphones

Joe to be on the safe side I think you should go for a pass port. One never can tell when some passenger decides to high jack the aircraft, pilots are even doing it now. Remember 9 - 11 when us good hearted Canadians allowed the planes that were destined to land in east coast American airports, they all ended up landing in Saint Johns NFLD and Moncton N.B. You no doubt know that you used to be able to use your birth certificate or drivers license, but not any more.

Bruce VE1ANH

On Monday, March 3, 2014 12:16:03 PM, Henry L. Dorkin <dorkinh@...> wrote:

This is a family oriented website. Please remember that "snow" is a four letter word.....

de WM1V
Hank

---- Original Message ----
From: "Garey Barrell" <k4oah@...>
Sent: 3/3/2014 10:24:26 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Microphones

So YOU'RE the one who got all the 'Global Warming'!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Jim Wiley wrote:
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> It's NOT snowing here! Nyah! Nyah! Nyah!
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>> Peter -
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>> Snowing HERE this morning! Supposed to get 4 - 8". ENOUGH already!! :-)
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>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>

19186. Re: [DrakeRadio] Re: Anchorage trip

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 18:10:43 UTC
From: Joe - W7RKN
Topic: 18933 Message: 19186

Yup...called density altitude...big problem for small plans here in Reno, where I have seen D.A. as high as 12,000 feet (At airport elevation of 5500 feet.) Phoenix's commercial airport has BIG issues in the summer with the commercial jets being too heavy for the high temps and density altitude. Even seen where they all have been grounded due to the H.D. figures.

Thanks..I will leave the 900 radio home (Unless I opt to bring the new toy..the Alinco DJ-G29, which is a 220/900 dual bander)...Thinking about it, probably not..the TH-F6a is smaller and lighter and has more power...5 watts as opposed to 3 watts on the Alinco.

I will keep your email handy...as it gets closer to travel time, I will ask you about car rentals, and places to see, that are NOT tourist oriented...the 'hidden' 'local' things are what I am really interested in....

By the way, how bad is the Alaska State Bird issue in Anchorage in the summer?

Joe - W7RKN
----- Original Message -----
From: Jim Wiley
Subject: [DrakeRadio] Re: Anchorage trip

Joe -

There are no 900 MHz repeaters in the area. There is some 220 activity, and a repeater, but it is down more than it is up. KL6M operates on 220 simplex fairly often.

Assuming you fly from a USA airport to Anchorage, no passport will be needed.

One time I was on a flight from Minneapolis to Anchorage that had to stop in Edmonton, Canada for additional fuel, the passengers were not permitted to leave the aircraft, so passports were not an issue. The reason we had to stop was that it was so hot in Minneapolis (100+ degrees) that the plane could not take on enough fuel to make a non-stop trip. This was because the warm air meant an extended take-off run, so the plane had to be lighter than normal. (cool air provides much more lift than warm air)

19187. R-4C filter changes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 19:13:14 UTC
From: John Sehring
Topic: 19187 Message: 19187

Hi All,

Been reading/hearing a lot about better filters for the R-4C receiver.

Question: Do these various mods affect the noise blanker performance?

This can happen due to the effect of bandpass (width, shape, Q) of the narrower filters. Noise pulses get stretched out and the noise blanker can't identify and blank them any more.

This is no reflection on the quality/usefulness of these replacement filters. It's simply a fact of electronic filter life!

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

19188. Re: [DrakeRadio] R-4C filter changes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 21:34:45 UTC
From: Garey Barrell
Topic: 19187 Message: 19188

Yes.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Sehring wrote:
> Hi All,
>
> Been reading/hearing a lot about better filters for the R-4C receiver.
>
> Question: Do these various mods affect the noise blanker performance?
>
> This can happen due to the effect of bandpass (width, shape, Q) of the narrower filters. Noise pulses get stretched out and the noise blanker can't identify and blank them any more.
>
> This is no reflection on the quality/usefulness of these replacement filters. It's simply a fact of electronic filter life!
>
>
> --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
>
>
>

19189. C-Line twins and N3ZI DDS Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 22:11:26 UTC
From: <dcoffman@...>
Topic: 19189 Message: 19189

I finally obtained and built the N3ZI DDS on Saturday. After configuring the first IF offset correctly, the unit controls the frequency quite nicely. I have it attached to a RCA Y adapter and then connected to the INJ jack of the R4C with the crystal switch set to an unused crystal socket. . I have a significant drop in receiver sensitivity WHICH I assume is due to the low output of the DDS; 250 mV P-P at 200 ohms. Now it's time to figure out how to get the correct output to meet the needs of the R4C. This is a very nice addition to the rig especially when band crystals are $20 per. Doug -N9XTF

19190. RE: R-4C filter changes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 22:18:35 UTC
From: <w5rkl@...>
Topic: 19187 Message: 19190

John,

If you are referring to the SSB/CW/AM filters then the Noise Blanker will not be affected by adding additional SSB/CW/AM filters. The R4C Noise Blanker resides "before" the SSB/CW/AM filters, not after the SSB/CW/AM filters..

73
Mike W5RKL

19191. Re: [DrakeRadio] C-Line twins and N3ZI DDS Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 22:23:06 UTC
From: <w7apm@...>
Topic: 19189 Message: 19191

Doug,

I wonder how a SWingle stage MMIC would do?

--- dcoffman@pdswireless.com wrote:

From: <dcoffman@pdswireless.com>
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] C-Line twins and N3ZI DDS Update
Date: 03 Mar 2014 14:11:26 -0800

I finally obtained and built the N3ZI DDS on Saturday. After configuring the first IF offset correctly, the unit controls the frequency quite nicely. I have it attached to a RCA Y adapter and then connected to the INJ jack of the R4C with the crystal switch set to an unused crystal socket. . I have a significant drop in receiver sensitivity WHICH I assume is due to the low output of the DDS; 250 mV P-P at 200 ohms. Now it's time to figure out how to get the correct output to meet the needs of the R4C. This is a very nice addition to the rig especially when band crystals are $20 per. Doug -N9XTF

19192. Re: [DrakeRadio] RE: R-4C filter changes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 22:35:44 UTC
From: Garey Barrell
Topic: 19187 Message: 19192

Good point Mike.

I assumed he was referring to 'roofing' filters, since I'm not aware of any 'modifications' to IF filtering in standard
receivers.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

w5rkl@... wrote:
>
>
> John,
>
> If you are referring to the SSB/CW/AM filters then the Noise Blanker will not be affected by adding additional
> SSB/CW/AM filters. The R4C Noise Blanker resides "before" the SSB/CW/AM filters, not after the SSB/CW/AM filters..
>
> 73
> Mike W5RKL
>
>

19193. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 23:01:32 UTC
From: <rochep@...>
Topic: 19150 Message: 19193

Yep, the calibrator trick worked dead on. Indeed louder between the two "dots". I was just surprised to hear intelligible conversation on the U or the L setting on 40 meters (LSB). I am sure I am doing something wrong.

paul

19194. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 23:20:06 UTC
From: Steve VK2SJA
Topic: 19150 Message: 19194

> Yep, the calibrator trick worked dead on. Indeed louder between the two
> "dots". I was just surprised to hear intelligible conversation on the U or
> the L setting on 40 meters (LSB). I am sure I am doing something wrong.
>
> paul

Did you just get unlucky (lucky?) and stumble across a DSB rig? Fair few homebrew ones being used in this neck or the woods.

73, Steve.

19195. Re: [DrakeRadio] TR-4C PA Neutralization

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-03 23:51:11 UTC
From: Steve VK2SJA
Topic: 18933 Message: 19195

Thanks Steve/Garey!

All understood.

Let you know how I get on.

73, Steve.

> Steve -
>
> 1a. Totally unrelated.
>
> 1. Start with C76 about mid-range. You won't get oscillation unless
> there is some other problem. Turn GAIN to
> minimum. The higher the frequency, the sharper the adjustment point. Not
> critical. Just the higher, the more accurate
> the adjustment.
>
> 2. Yep!
>
> 3. I prefer 'outside'. 'INside' is 'part of the circuit' RF wise.
>
> 4. Yes.
>
> 5. Leave dummy load connected.
>
> 6. NO power here.
>
> 7. You are adjusting a very small capacitor. Metal tool ADDS
> capacitance. Fiber or plastic. No 'anti-static'.
> Adjust for minimum!
>
> 8. Yes.
>
> 9. Yes.
>
> 10. Wouldn't hurt just for confirmation, not necessary.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve VK2SJA wrote:

>> Hi Chaps,
>>
>> Now that my *new* TR-4C is "glowing" and "singing" again. I'm looking
>> towards doing the alignments. In particular the PA Neutralization. I've
>> been scouring the archives. And it appears that if you already have the
>> rig opened up for surgery, that the "cold screen-grid" approach is
>> actually the easiest method. So long as your careful about safety
>> (always)
>> and treat gently the feed-through cap so as not to break it.
>>
>> I've put together my own "procedure" for doing this by reading multiple
>> previous posts to this group. Can you guys in the "know" have a read of
>> my
>> procedure below, peppered with questions, and let me know if I'm about
>> to
>> do anything stupid. i.e. have I missed something obvious in my
>> ignorance.
>>
>> Remember that "I know nothing about tubes/valves"!!
>>
>> Thanks!
>>
>> 73, Steve.
>>
>>
>>
>> ----- TR-4C PA tube neutralization procedure: -----
>>
>> Cold screen-grid method:-
>>
>> 1a. Does the IF neutralization procedure need to be done *before* the PA
>> neutralization or are they completely independent adjustments?
>>
>> 1. Properly tune the radio transmitter for output on 28.8Mhz (plate
>> dipped
>> correctly).
>> Why this frequency? Just because it is pretty high
>> and available from one of the stock crystals?
>> Is this just to get you "close" to the final adjustment point?
>> Is this step really required?
>> What if the radio runs away in oscillation while your trying
>> to tune properly for this frequency? Drop to a lower band say 15m
>> and
>> try again there?
>> Where should we adjust/leave the XTMR GAIN control at this point? 0.2A
>> on
>> plate meter or does it not matter because we are disconnecting the
>> screen-grid supply?
>> 2. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
>> 3. Disconnect the +250VDC screen-grid supply at the bulk head feed

>> through.
>> **Be very careful with the feed-through caps. They can break easy
>> enough
>> if your rough with them.**
>> Which side of the feed-through is best to disconnect?
>> 4. Very carefully *insulate* disconnected +250VDC wire so that it can't
>> harm you or the rig! ***ZAPPO SHOCKO***
>> 5. Connect rig to dummy-load via modified PL259 "T-piece" aka RF-Sniffer
>> (centre pin ground down).
>> 6. Connect scope with 1:1 probe to RF-Sniffer port on modified PL259
>> "T-piece".
>> Can you use a RF power meter here instead?
>> 7. Using a *PLASTIC* non-conductive adjustment tool only! Adjust C76 for
>> dip (minimum RF output on scope). ***ZAPPO SHOCKO***
>> C76 is normally hot with +250VDC!
>> Is C76 still hot after disconnection of +250VDC at the feed-through?
>> Aside from the critical safety issue does a metallic adjustment tool
>> throw out the adjustment point? Perhaps not. It's a capacitor not an
>> inductor.
>> 8. Disconnect power supply from rig altogether!!! ***ZAPPO SHOCKO***
>> 9. Re-connect the +250VDC screen-grid supply at the bulk head feed
>> through.
>> 10. Job done.
>> What (if any) additional sanity-check should be done at this point?
>> Checked the dip vs. max output on 10m?
>>
>>
>>
>>
>>
>>
>>
>> ------------------------------------
>>
>> Yahoo Groups Links
>>
>>
>>
>>
>>
>> -----
>> No virus found in this message.
>> Checked by AVG - www.avg.com
>> Version: 2014.0.4335 / Virus Database: 3705/7143 - Release Date:
>> 03/02/14
>>
>>
>
>

19196. RE: C-Line twins and N3ZI DDS Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 00:01:35 UTC
From: <k6ctw@...>
Topic: 19189 Message: 19196

Doug,

You might look at the MAR-6+. Its a nice gain block and works from DC to GHz. I put a sample circuit in the May 2013 Electric Radio (but you won't want the low pass filter). The article is about using the FCC-1/FCC-2 from NorCal to drive a Heathkit DX-60 but should also work for you on the R-4C.

Email me off-list if you need the schematic.

73 - Ken Miller, K6CTW

19197. Re: [DrakeRadio] Passband tuning circuit board

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 01:53:54 UTC
From: <rochep@...>
Topic: 19150 Message: 19197

Naw, it only does this on LSB, not on USB.

p

19198. Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 02:27:38 UTC
From: VE3AX/7
Topic: 19198 Message: 19198

Evenin' guys:

I just posted a downsized version (1.9 Meg) pic of Ray sitting at the Design Industries desk with his Drake B-line that wowed so many of us back then and ultimately helped bring some of us together here on this group. I know I drooled over that station in the QST ad and when I finally decided to put together a Drake station for good back in the early '90's, it was the memory of this pic that formed the basis of my plan.

Ray sent me an 8 x 10 glossy of the pic used to make that ad about 10 years ago after running into him on 2 meters during some tropo enhancement across the Great Lakes. Of course the talk turned to Drake and his famous ad. This pic arrived totally unexpectedly in the next week's mail.

Ray has given me permission to use it wherever I fell like it so am posting it here. I have a higher quality scan if anyone really needs it. The original scan is a 2.8 Meg PDF file that does a really nice job when printed on a good laserjet with photo paper. The pdf will not load into the Photos album – not sure what the restrictions are – maybe it would go into the FILES section – Garey?

Not sure why, but the bottom of the pic gets cut off in the Yahoo viewer on my little netbook, but am hoping that's an issue with this little beast. The "thumbnail" looks complete.

If anyone has a really god scan of the whole ad, I would love to see that get posted as well. I dumped all my old QST's when I moved out here 7 years ago.

73 and enjoy.

Peter
VE3AX/7

19199. RE: C-Line twins and N3ZI DDS Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 02:31:59 UTC
From: <dcoffman@...>
Topic: 19189 Message: 19199

Ken,

Attempted to fill out your spam blocker info but it failed. Cannot send you an email..

Doug

19200. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 02:33:56 UTC
From: Paul Christensen
Topic: 19198 Message: 19200

Thanks, Peter.

Anyone recognize the square-framed map on the wall that resembles a Geochron – but isn’t?

I can see why that picture made it into near legendary status. Clean layout, full Drake line-up and a rear-sloping desk to allow for better sight angle.

Paul, W9AC

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

19201. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 02:37:50 UTC
From: VE3AX/7
Topic: 19198 Message: 19201

Paul:

I just assumed it was an older style, mechanical Geochron but am now wondering if it was perhaps a predecessor? I am pretty sure a late ‘60’s QST would reveal the answer. I know I have seen that thing before. Was always out of my league – of course almost everything was in 1970!

73

Peter
VE3AX/7

From: Paul Christensen
Sent: Monday, March 03, 2014 6:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Thanks, Peter.

Anyone recognize the square-framed map on the wall that resembles a Geochron – but isn’t?

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Paul, W9AC

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19202. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 02:40:57 UTC
From: Jim Shorney
Topic: 18933 Message: 19202

The +3 I use is essentially a +3B that was rebadged for Lafayette. A rare bird, I've never seen another one. For those that don't know, the "B" is not a circuit revision. It means "all black". IMO it is a much better match for the cosmetics of the TR-7 than the 7077 was. The chrome head and black body of the Super Sidekick would look nice as well. I had one of those many years ago, before the TR-7 came into the house. The SSK is a dynamic mic, so like the Shure 444 it would have a different character than the ceramics. Generally speaking, the reports I got were that the dynamics (Shure 444B and 7077) had a more natural sound that is well suited for casual QSOing, while the ceramic/crystal mics had more "punch" and perhaps better articulation and were more suitable for DX and weak signal work.

You have to keep the gain down if you want to use any amplified mic, since the extra gain isn't needed in the first place. That's why I discourage their use, the exception being the +3. I run mine at about the first dot, with works out to be just a tad above 9 o'clock. That seems to be close in level to my unamplified ceramics. I tend to run between 6 and 9 dB of clipping on the SP-75, anything higher than that becomes objectionable. Since I was using so many different mics I moved the level controls of the SP-75 to the rear panel, using the existing holes to mount new pots with knobs that closely match the 7-Line style. It looks pretty darn good from the rear....

I did have a couple of unsolicited compliments on my audio over the weekend during the DX contest. I was doing S&P, so to have a guy that's running take a pause to compliment my audio seems to mean a little more.

73

-Jim (I should paint up an all white +3A and call it "albino")
NU0C

On Mon, 3 Mar 2014 10:58:50 -0700 (MST), docbrent wrote:

>On Jim's recommendation, I too am using a Turner +3 on my TR-7. Audio reports are invariably very good. Sometimes embarrassingly effusive.
>
>I have to keep the mic gain down just below 9 o'clock. When I use the my Drake speech compressor, I can only go to about 3db before it gets harsh, but I haven't really tested it out thoroughly. That was going by the reports of a local, not a distant station pulling me out of the noise.
>
>Just one battery for a couple of years now, by the way.
>
>I also have a Turner Super Sidekick, obtained before the +3. I haven't used it much. I had one very negative report -- indeed, it was more of a lecture, from someone who hated the fact I was using a CB mic on a ham radio. Maybe he'd have sung a different tune if I told

him it was a Heil or something more "dignified."
>
>Maybe time for a side-by-side. The Super Side Kick is a better match to the TR-7 colour scheme, if you can overlook the blingy chrome at the mouth piece.
>
>I've looked high and low for a +3B. I had one before, but sold it with my old TS-520. It was that mic that cinched the deal, by the way, when I was demo-ing the radio. It made a "holy cow" improvement over the stock MC-50.
>
>I'm sure it was these microphones that inspired the Byrds, in their classic rendition of the Pete Seger song . . . (everyone sing along now) "To everything, Turner, Turner, Turner."
>
>73 de
>Brenton Crowhurst, VE6IE
>
>----- Original Message -----
>
>From: "Jim Shorney" <jshorney@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Sunday, March 2, 2014 8:30:55 PM
>Subject: Re: [DrakeRadio] Drake Microphones
>
>
>
>On Sun, 2 Mar 2014 18:18:29 -0800, VE3AX/7 wrote:
>
>>I have also used the Turner +3 and it gets great reports on the audio as long as you watch the drive. The battery tends to run down quickly so I usually pull it when I am away from the shack for any length of time.
>
>There might be a problem there. I think I've changed the battery in my +3 once
>since I started using it. But I don't remember for sure if I did or not. Check
>the wiring on the leaf switch, it should be turning the battery off when
>unkeyed.
>
>As a general rule I detest amplified mics. They are usually not necessary and
>can create more problems than they solve.* There is not a D-104 T-UGx stand in
>the house here that still has the amplifier connected. The unique thing about
>the Turner +3 is it has a real compression amp. It can be of some benefit with
>radios that don't have any "processing" built in.
>
>(*Unless the system is DESIGNED to require a premplified mic.)
>
>73
>
>-Jim
>NU0C
>
>--
>The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris,

"The Doctor's Wife"
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19203. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 03:04:50 UTC
From: Paul Christensen
Topic: 19198 Message: 19203

A bit if search engine snooping shows that it’s a Howard Miller World Time Wall Clock.

Paul, W9AC

From: VE3AX/7
Sent: Monday, March 03, 2014 9:37 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Paul:

I just assumed it was an older style, mechanical Geochron but am now wondering if it was perhaps a predecessor? I am pretty sure a late ‘60’s QST would reveal the answer. I know I have seen that thing before. Was always out of my league – of course almost everything was in 1970!

73

Peter
VE3AX/7

From: Paul Christensen
Sent: Monday, March 03, 2014 6:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Thanks, Peter.

Anyone recognize the square-framed map on the wall that resembles a Geochron – but isn’t?

I can see why that picture made it into near legendary status. Clean layout, full Drake line-up and a rear-sloping desk to allow for better sight angle.

Paul, W9AC

This email is free from viruses and malware because avast! Antivirus protection is active.

19204. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 03:13:46 UTC
From: Paul Christensen
Topic: 19198 Message: 19204

And, here's the Patent for it:

http://www.google.com/patents/US3232038

What's strange is that the map shows the pending patent number, but also a copyright date of 1959. The patent was filed in 1964, then granted in 1966.

This is roughly the time of the first Geochron appearance. BTW, I just acquired a Geochron and mounted it on the shack wall last weekend. It's an amazing device that just can't be duplicated with PC software. I tried with a large Samsung monitor and World Clock software but the Geochron's brilliance is stunning. However, it's definitely an example of "shack excess."

Paul, W9AC

From: Paul Christensen
Sent: Monday, March 03, 2014 10:04 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

A bit if search engine snooping shows that it's a Howard Miller World Time Wall Clock.

Paul, W9AC

From: VE3AX/7
Sent: Monday, March 03, 2014 9:37 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Paul:

I just assumed it was an older style, mechanical Geochron but am now wondering if it was perhaps a predecessor? I am pretty sure a late '60's QST would reveal the answer. I know I have seen that thing before. Was always out of my league – of course almost everything was in 1970!

73

Peter
VE3AX/7

From: Paul Christensen
Sent: Monday, March 03, 2014 6:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Thanks, Peter.

Anyone recognize the square-framed map on the wall that resembles a Geochron – but isn't?

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Paul, W9AC

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19205. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 03:42:00 UTC
From: Whitebear1122
Topic: 19198 Message: 19205

Thanks Peter for scanning and posting the picture. Yep that's one that I remember from the early 70's. What a fabulous looking station, T-4XB, R-4B, CC2 (?) 6 and 2 converters, TC2 2 meter transporter, TC6 6 meter transporter, L-4Basher, W-4 wattmeter, Console (don't recall the model number, C4 maybe), MS-4, and a Shure 444, and the Ham M rotor control.

When I was overseas in the Navy in the early 70's I used to sit on radio watch, read QST, and dream about owning that fabulous station!

I seem to recall a later drake photo of Ray but maybe I'm confused. While I defiantly recognize the horn rimmed glasses picture, I also I seem to recall Ray in another ad, later on, with non-black glasses, and older poofed hair not slicked back. hi hi

That desk is quite amazing. I like the flat writing surface towards the front, and the angled rear portion which angles the radios upward. Is all that equipment actually hooked up? I see a small bundle of cables under MS-4. I would have expected a lot more cabling. Pretty clean set up from a cable point of view.

I don't plan to duplicate that set up but I would like to get the L-4B, especially if I can find one local or within driving distance.

Thanks for the walk down memory lane.

73, Scott WA9WFA
Finally Drake, TR-4CW-RIT

On Mar 3, 2014, at 8:27 PM, "VE3AX/7" <ve3ax@telus.net> wrote:

>
>
> Evenin’ guys:
>
> I just posted a downsized version (1.9 Meg) pic of Ray sitting at the Design Industries desk with his Drake B-line that wowed so many of us back then and ultimately helped bring some of us together here on this group. I know I drooled over that station in the QST ad and when I finally decided to put together a Drake station for good back in the early ‘90’s, it was the memory of this pic that formed the basis of my plan.
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> Ray has given me permission to use it wherever I fell like it so am posting it here. I have a higher quality scan if anyone really needs it. The original scan is a 2.8 Meg PDF file that does a really nice job when printed on a good laserjet with photo paper. The pdf will not load into the Photos album – not sure what the restrictions are – maybe it would go into the FILES section – Garey?

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> Not sure why, but the bottom of the pic gets cut off in the Yahoo viewer on my little netbook, but am hoping that’s an issue with this little beast. The “thumbnail” looks complete.
>
> If anyone has a really god scan of the whole ad, I would love to see that get posted as well. I dumped all my old QST’s when I moved out here 7 years ago.
>
> 73 and enjoy.
>
> Peter
> VE3AX/7
>
>
> _

19206. Re: [DrakeRadio] R-4C filter changes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 03:47:43 UTC
From: Evan Rolek
Topic: 19187 Message: 19206

John,

I can't speak with authority with regard to 3rd party filters. But, from what I've read and hear, the noise blanker performance, and alignment of it as well, has the assumption that the basic receiver has been properly aligned. I would assume the same is true for 3rd party filters, but I could be wrong.

73,

Evan, K9SQG

-----Original Message-----
From: John Sehring <wb0eq@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 3, 2014 2:13 pm
Subject: [DrakeRadio] R-4C filter changes

Hi All,

Been reading/hearing a lot about better filters for the R-4C receiver.

Question: Do these various mods affect the noise blanker performance?

This can happen due to the effect of bandpass (width, shape, Q) of the narrower filters. Noise pulses get stretched out and the noise blanker can't identify and blank them any more.

This is no reflection on the quality/usefulness of these replacement filters. It's simply a fact of electronic filter life!

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

19207. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 03:49:48 UTC
From: Barry
Topic: 19198 Message: 19207

Hi Scott,

I don't know where you are, but this one's in Huntsville, AL:

http://huntsville.craigslist.org/ele/4356100649.html

It's not mine and I don't know the seller but I happened to notice it on Craigslist the last day or so.

Regards,
Barry - N4BUQ

----- Original Message -----
> From: "Whitebear1122" <whitebear1122@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, March 3, 2014 9:42:00 PM
> Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad
>
>
>
> Thanks Peter for scanning and posting the picture. Yep that's one
> that I remember from the early 70's. What a fabulous looking
> station, T-4XB, R-4B, CC2 (?) 6 and 2 converters, TC2 2 meter
> transporter, TC6 6 meter transporter, L-4Basher, W-4 wattmeter,
> Console (don't recall the model number, C4 maybe), MS-4, and a Shure
> 444, and the Ham M rotor control.
>
>
> When I was overseas in the Navy in the early 70's I used to sit on
> radio watch, read QST, and dream about owning that fabulous station!
>
>
> I seem to recall a later drake photo of Ray but maybe I'm confused.
> While I defiantly recognize the horn rimmed glasses picture, I also
> I seem to recall Ray in another ad, later on, with non-black
> glasses, and older poofed hair not slicked back. hi hi
>
>
> That desk is quite amazing. I like the flat writing surface towards
> the front, and the angled rear portion which angles the radios
> upward. Is all that equipment actually hooked up? I see a small
> bundle of cables under MS-4. I would have expected a lot more
> cabling. Pretty clean set up from a cable point of view.
>
>
> I don't plan to duplicate that set up but I would like to get the

> L-4B, especially if I can find one local or within driving distance.
>
>
> Thanks for the walk down memory lane.
>
>
> 73, Scott WA9WFA
> Finally Drake, TR-4CW-RIT
>
>
>
>
>
> On Mar 3, 2014, at 8:27 PM, "VE3AX/7" < ve3ax@... > wrote:
>
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>
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>
>
>
> Evenin' guys:
>
> I just posted a downsized version (1.9 Meg) pic of Ray sitting at the
> Design Industries desk with his Drake B-line that wowed so many of
> us back then and ultimately helped bring some of us together here on
> this group. I know I drooled over that station in the QST ad and
> when I finally decided to put together a Drake station for good back
> in the early '90's, it was the memory of this pic that formed the
> basis of my plan.
>
> Ray sent me an 8 x 10 glossy of the pic used to make that ad about 10
> years ago after running into him on 2 meters during some tropo
> enhancement across the Great Lakes. Of course the talk turned to
> Drake and his famous ad. This pic arrived totally unexpectedly in
> the next week's mail.
>
> Ray has given me permission to use it wherever I fell like it so am
> posting it here. I have a higher quality scan if anyone really needs
> it. The original scan is a 2.8 Meg PDF file that does a really nice
> job when printed on a good laserjet with photo paper. The pdf will
> not load into the Photos album – not sure what the restrictions are
> – maybe it would go into the FILES section – Garey?
>
> Not sure why, but the bottom of the pic gets cut off in the Yahoo
> viewer on my little netbook, but am hoping that's an issue with this
> little beast. The "thumbnail" looks complete.
>
> If anyone has a really god scan of the whole ad, I would love to see

> that get posted as well. I dumped all my old QST’s when I moved out
> here 7 years ago.
>
> 73 and enjoy.
>
> Peter
> VE3AX/7
>
>
> _
>
>
>

19208. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 04:24:26 UTC
From: VE3AX/7
Topic: 19198 Message: 19208

Scott:

Actually came across a 2011 post of you commenting on that ad!

You can see a much more recent pic of Ray here:
http://fdlhams.org/assets/2014-feb_news.pdf

It's almost scary how much he looks like me in that pic. I usually got mistaken for Peter Kormos, a very popular and outspoken MPP for the NDP party in Welland, Ontario, where I worked for 20 years. Google Peter Kormos and look at the pics on the right. A lot depends on whether I'm wearing contacts or glasses. People would come up to me at gas stations in that area and shake my hand! They'd say "Are you Peter? " and of course I couldn't resist saying, "Well, yes I am!" Peter Kormos died suddenly last March – he was 3 months younger than I am!

Couple of corrections – the rx console is the CC-1, not to be confused with the CA-1 which is a stacking cabinet for the 4 line tx/rx. There were two styles of the CC-1, early and late, involving different rear panel plug arrangements.

The 2m rx converter was the SC-2 and the 6 meter was the SC-6. There is a VHF xtal calibrator that went in there too called the SCC-1 and a power supply, the PS-1 (I think that's what it is) to run it all.

As a VHF DX-er since 1970 those Drake transverters were like a dream to me! I was using homebrew 6360 transverters on 2m and 220 Mhz at the time. When I was in Ontario and had the VHF/UHF contest station set up (1998-2007) I would get on with both 6 and 2m transverters barefoot to big, high multi-yagi arrays once in a while and surprise people with the "vintage" station. Here in this deep Rockies valley there's not much point! I have a 3,000 foot rise about 1/4 mile south of me, nearly all of which is in Washington State. Antennas are minimal as well. I still have this dream of moving somewhere, anywhere, with a horizon! Mountaintop homes are rare here, winter access even more rare, and they come with their own set of problems, not the least of which are rattlesnakes (western diamondbacks) and way more black widows than we see down here.

The desk was made by Design Industries, long defunct. I cannot recall what the model is but will work on that. They made the famous Ambassador and President models you see full of Collins gear all the time (logbooks, World's Fair pics). I have an Ambassador (single layer of gear) here that was made for a Drake 4 line – extremely rare! My B-line is in it but it needs some work. The front panel warped when I came west.

I have no idea if the gear is actually hooked up in that pic but I know Ray is in my log on 2 meters way back in the '70's and 30 years later too. Also worked him on HF from the AES Starhip several times over the years.

Fun stuff!

73

Peter
VE3AX/7

From: Whitebear1122
Sent: Monday, March 03, 2014 7:42 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

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Thanks for the walk down memory lane.

73, Scott WA9WFA
Finally Drake, TR-4CW-RIT

On Mar 3, 2014, at 8:27 PM, "VE3AX/7" <ve3ax@...> wrote:

Evenin’ guys:

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Ray sent me an 8 x 10 glossy of the pic used to make that ad about 10 years ago after running into him on 2 meters during some tropo enhancement across the Great Lakes. Of course the talk turned to Drake and his famous ad. This pic arrived totally unexpectedly in the next week’s mail.

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Not sure why, but the bottom of the pic gets cut off in the Yahoo viewer on my little netbook, but am hoping that’s an issue with this little beast. The “thumbnail” looks complete.

If anyone has a really god scan of the whole ad, I would love to see that get posted as well. I dumped all my old QST’s when I moved out here 7 years ago.

73 and enjoy.

Peter
VE3AX/7

–

19209. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 12:41:50 UTC
From: <baysideanh@...>
Topic: 19198 Message: 19209

Interesting reading all he information on AES and Ray's advertisement. I can remember it and
also drooling over all the Drake gear. Peter, I didn't dispose of my old QST's, I can't look at
them now as they are stored on shelves at my cottage. I'm due for a trip there in the next week or
so to check the place out so I will definitely look for the ad.
Bruce VE1ANH

19210. Want to buy wattmeter element

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 16:39:18 UTC
From: Joe W2KJ
Topic: 19091 Message: 19210

>> Howdy Gang:
>>
>> Want to buy either a Bird 250H 250W 2-30Mhz element or a Coaxial Dynamics CDI 82006 250W 2-30Mhz Element must be in excellent physical and operational condition.
>>
>> Please send picture of actual element, along with the price and shipping to NC 28443 in email.
>>
>> Many thanks and and keep the Drakes lit up.
>>
>> 73, Joe W2KJ

19211. Re: [DrakeRadio] posted pics @ group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 18:25:33 UTC
From: Chgypsy@...
Topic: 19211 Message: 19211

ve3ax@... writes:

Peter
VE3AX/7

Hi Peter,
Just thought I would tell you that is a VERY nice setup you have. Really liked the Drake atmosphere monitor scope. Carl WD8NHK

19212. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 19:50:49 UTC
From: docbrent
Topic: 18933 Message: 19212

Thanks for your further comments on this, Jim. I might have had the SSK cranked too high when I was using it.

Now I REAALY wish I'd held onto the +3B. It didn't match the coloring of the TS-520, but I agree it'd look beautiful with the TR7.

I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.

And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."

Jus' trying to be helpful.

Brenton Crowhurst, VE6IE

PS actually, I'm not trying to be helpful, and I do not genuinely recommend Jim engage in fraudulent sales practices.
I'm trying to take a humorous swipe at a notorious evil bayer.
----- Original Message -----

From: "Jim Shorney" <jshorney@...>
To: DrakeRadio@yahoogroups.com
Sent: Monday, March 3, 2014 7:40:57 PM
Subject: Re: [DrakeRadio] Drake Microphones

The +3 I use is essentially a +3B that was rebadged for Lafayette. A rare bird, I've never seen another one. For those that don't know, the "B" is not a circuit revision. It means "all black". IMO it is a much better match for the cosmetics of the TR-7 than the 7077 was. The chrome head and black body of the Super Sidekick would look nice as well. I had one of those many years ago, before the TR-7 came into the house. The SSK is a dynamic mic, so like the Shure 444 it would have a different character than the ceramics. Generally speaking, the reports I got were that the dynamics (Shure 444B and 7077) had a more natural sound that is well suited for casual QSOing, while the ceramic/crystal mics had more "punch" and perhaps better articulation and were more suitable for DX and weak signal work.

You have to keep the gain down if you want to use any amplified mic, since the extra gain isn't needed in the first place. That's why I discourage their use, the exception being the +3. I run mine at about the first dot, with works out to be just a tad above 9 o'clock. That seems to be close in level to my unamplified ceramics. I tend to run between 6 and 9 dB of clipping on the SP-75, anything higher than that becomes objectionable. Since I was using so many different mics I moved the level controls of the SP-75 to the rear panel, using the existing holes to mount new pots with knobs that closely match the 7-Line style. It looks pretty darn good from the rear....

I did have a couple of unsolicited compliments on my audio over the weekend during the DX contest. I was doing S&P, so to have a guy that's running take a pause to compliment my audio seems to mean a little more.

73

-Jim (I should paint up an all white +3A and call it "albino")
NU0C

On Mon, 3 Mar 2014 10:58:50 -0700 (MST), docbrent wrote:

>On Jim's recommendation, I too am using a Turner +3 on my TR-7. Audio reports are invariably very good. Sometimes embarrassingly effusive.
>
>I have to keep the mic gain down just below 9 o'clock. When I use the my Drake speech compressor, I can only go to about 3db before it gets harsh, but I haven't really tested it out thoroughly. That was going by the reports of a local, not a distant station pulling me out of the noise.
>
>Just one battery for a couple of years now, by the way.
>
>I also have a Turner Super Sidekick, obtained before the +3. I haven't used it much. I had one very negative report -- indeed, it was more of a lecture, from someone who hated the fact I was using a CB mic on a ham radio. Maybe he'd have sung a different tune if I told him it was a Heil or something more "dignified."
>
>Maybe time for a side-by-side. The Super Side Kick is a better match to the TR-7 colour scheme, if you can overlook the blingy chrome at the mouth piece.
>
>I've looked high and low for a +3B. I had one before, but sold it with my old TS-520. It was that mic that cinched the deal, by the way, when I was demo-ing the radio. It made a "holy cow" improvement over the stock MC-50.
>
>I'm sure it was these microphones that inspired the Byrds, in their classic rendition of the Pete Seger song . . . (everyone sing along now) "To everything, Turner, Turner, Turner."
>
>73 de
>Brenton Crowhurst, VE6IE
>
>----- Original Message -----
>
>From: "Jim Shorney" <jshorney@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Sunday, March 2, 2014 8:30:55 PM
>Subject: Re: [DrakeRadio] Drake Microphones
>
>
>
>On Sun, 2 Mar 2014 18:18:29 -0800, VE3AX/7 wrote:
>
>>I have also used the Turner +3 and it gets great reports on the audio as long as you

watch the drive. The battery tends to run down quickly so I usually pull it when I am away from the shack for any length of time.
>
>There might be a problem there. I think I've changed the battery in my +3 once
>since I started using it. But I don't remember for sure if I did or not. Check
>the wiring on the leaf switch, it should be turning the battery off when
>unkeyed.
>
>As a general rule I detest amplified mics. They are usually not necessary and
>can create more problems than they solve.* There is not a D-104 T-UGx stand in
>the house here that still has the amplifier connected. The unique thing about
>the Turner +3 is it has a real compression amp. It can be of some benefit with
>radios that don't have any "processing" built in.
>
>(*Unless the system is DESIGNED to require a premplified mic.)
>
>73
>
>-Jim
>NU0C
>
>--
>The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19213. Plug In Relay for TR-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 21:28:40 UTC
From: <tcantrel@...>
Topic: 19213 Message: 19213

I have a TR-4 that I'm doing some restoration work on and wondered if the Plug-In Relay that Harbach Electronics sells is compatible with the TR-4 wiring and supply voltage ? It's advertised a direct replacement for the TR-4C relay and I realize it takes an adaptor kit to accommodate the relay in a TR-4. Will this work in the TR-4 without a lot of additional modifications or different relay voltage being provided ? Thanks,

Terry, W4WTC

19214. Re: [DrakeRadio] Plug In Relay for TR-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 21:45:41 UTC
From: Garey Barrell
Topic: 19213 Message: 19214

Terry -

I believe the relay that Jeff offers is correct. The relay is a TYCO (P & B) R10-E1-Y4-V2.5k, which is available still from Mouser, Digi-Key, etc. for about the same price. The same relay is used in all the Drake C Series transmitters.
An 'adapter kit' is required, John Kriner (The Man's Amateur Supply) still had those last time I looked. If your original relay is a Varley, you'll need to add a resistor in series with the coil.

The modification kit is a small PC board that mounts over the feedthroughs through the chassis. Not trivial, but easy enough if you follow the directions and keep the wires straight! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tcantrel@... wrote:
>
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> is compatible with the TR-4 wiring and supply voltage ? It's advertised a direct replacement for the TR-4C relay and
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> additional modifications or different relay voltage being provided ? Thanks,
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> Terry, W4WTC
>

19215. W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 22:48:43 UTC
From: Jim Shorney
Topic: 19215 Message: 19215

I just worked W1AW/7 in Washington state on 15 Meters AM using my TR-7 modified for wide AM transmit. He said it sounded "fantastic", and picked up on the fact that the TR-7 was normally single-sideband AM but I was transmitting full DSB. What a fun contact!

He's on 21.420 right now if anyone sees this soon enough...

73

-Jim
NU0C

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

19216. RE: [DrakeRadio] Plug In Relay for TR-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-04 22:49:35 UTC
From: Terry Cantrell
Topic: 19213 Message: 19216

Hi Garey:

Thanks for the information. I have to say that the support you and others who are part of the Drake Users group provide is nothing short of phenomenal. Just wish I had some of you to look over my shoulder from time to time on some of these trouble shooting forays..LOL !! The direction provided on so many different topics on Drake gear are greatly appreciated. Thanks again..!

73,

Terry

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Tuesday, March 04, 2014 4:46 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Plug In Relay for TR-4 Question

Terry -

I believe the relay that Jeff offers is correct. The relay is a TYCO (P & B) R10-E1-Y4-V2.5k, which is available still
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Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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tcantrel@bellsouth.net wrote:
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> additional modifications or different relay voltage being provided ? Thanks,
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19217. Help with T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 01:42:14 UTC
From: John Oleksak
Topic: 19217 Message: 19217

Just picked one up on Ebay...supposedly worked 2 years ago, it's been sitting in a closet till I bought it. Seems to be in pretty nice shape, but I can't get it to load up properly on any band, and it only puts out almost 40 watts on 15 meters only...won't load up on any other band. I followed the instructions to a tee, many times. I did set the bias as directed. Im using a dummy load to try it out. One tube was out when I received it, I just plugged it back in, but realize that doesn't mean it's good. They all light up, but that's all I can say. I cleaned all controls and switches with deoxit, and tube sockets. Im trying not to mess with it too much, especially worried about damaging the finals. I'm good with electronics, but have never dug too deep into the Drake units as far as how they're supposed to work (the technical part). Any idea of where to start, what to look for, what to replace? Tube maybe? I don't know where to go
from here. Thanks. John KD2BLY

19218. Looking For----Sorta

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 01:55:11 UTC
From: Joe - W7RKN
Topic: 19218 Message: 19218

I have a real nice T-4X...I currently use it with an R-4B...I would like to find a clean, working, R-4 to go with it, and then I can use my spare T-4XB with its receiver.

(That all make sense???)

Joe - W7RKN

19219. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 02:07:47 UTC
From: docbrent
Topic: 19215 Message: 19219

Say Jim,

I'm curious to know a bit more about this AM mod to which you refer.... Not that I use AM, but I think I might just fit right in there!

De
Brenton Crowhurst, VE6IE

not that I've ever used the pseudo AM mode on my "7", but I'm a retro guy at heart. I'm curious about this almost completely abandoned mode that, despite its limitations, seems to have exquisite properties

----- Original Message -----From: Jim Shorney <jshorney@...>To: DrakeRadio@yahoogroups.comSent: Tue, 04 Mar 2014 15:48:43 -0700 (MST)Subject: [DrakeRadio] W1AW/7 on AM!

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19220. Re: [DrakeRadio] Help with T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 02:10:51 UTC
From: Steve Wedge
Topic: 19217 Message: 19220

John,

First, welcome!

Now - don't assume that the finals are good. If you're getting a power peak on 15 only, be sure that it's peaking approximately where it should.

If you have a matching receiver, connect the two together and see if (1) the receiver can receive signals with the TX in control of the frequency and (2) if the TX can output using the RX to control the frequency. The outcome of this will give you a general idea of where the problem may be.

If you have a scope, check for the carrier oscillator signal where it connects to the balanced modulator. You have to key the rig to see this.

The band oscillator should show signals on each band if you attach the probe to the output of the oscillator where it connects to the wafer switch.

Finally, the PTO should show output where it enters the board via the (usually) green and white wire from the PTO.

If the seller was honest and it really was working two years ago, you do not want to start fiddling with the RF trimmers just yet. Check for these signals.

Also, make sure that your XTALS switch is set to NORM.

73 & GL,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: John Oleksak
Sent: Tuesday, March 04, 2014 8:42 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] Help with T4XB

Just picked one up on Ebay...supposedly worked 2 years ago, it's been sitting in a closet till I bought it. Seems to be in pretty nice shape, but I can't get it to load up properly on any band, and it only puts out almost 40 watts on 15 meters only...won't load up on any other band. I followed the instructions to a tee, many times. I did set the bias as directed. Im using a dummy load to try it out. One tube was out when I received it, I just plugged it back in, but realize that doesn't mean it's good. They all light up, but that's all I can say. I cleaned all controls and switches with deoxit, and tube sockets. Im trying not to mess with it too much, especially worried about damaging the finals. I'm good with electronics, but have never dug too deep into the Drake units as far as how they're

supposed to work (the technical part). Any idea of where to start, what to look for, what to replace? Tube maybe? I don't know where to go from here. Thanks. John KD2BLY

19221. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 02:27:04 UTC
From: Docbrent
Topic: 19215 Message: 19221

Judging from how that posted, one of us is too drunk to be handling high voltage -- me or my email program.

cw, cw, cw px? . . . Go ahead breaker 1-9!

----- Original Message -----From: docbrent <docbrent@...>To: DrakeRadio@yahoogroups.comSent: Tue, 04 Mar 2014 19:07:47 -0700 (MST)Subject: Re: [DrakeRadio] W1AW/7 on AM!

Say Jim,

I'm curious to know a bit more about this AM mod to which you refer.... Not that I use AM, but I think I might just fit right in there!

De
Brenton Crowhurst, VE6IE

not that I've ever used the pseudo AM mode on my "7", but I'm a retro guy at heart. I'm curious about this almost completely abandoned mode that, despite its limitations, seems to have exquisite properties

----- Original Message -----From: Jim Shorney <jshorney@...>To: DrakeRadio@yahoogroups.comSent: Tue, 04 Mar 2014 15:48:43 -0700 (MST)Subject: [DrakeRadio] W1AW/7 on AM!

I just worked W1AW/7 in Washington state on 15 Meters AM using my TR-7 modified

for wide AM transmit. He said it sounded "fantastic", and picked up on the fact

that the TR-7 was normally single-sideband AM but I was transmitting full DSB.

What a fun contact!

He's on 21.420 right now if anyone sees this soon enough...

73

-Jim

NU0C

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

19222. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 02:46:21 UTC
From: Charles Ring
Topic: 19215 Message: 19222

On 3/4/2014 2107, docbrent wrote:
> Say Jim,
> I'm curious to know a bit more about this AM mod to which you
> refer.... Not that I use AM, but I think I might just fit right in there!
> De
> Brenton Crowhurst, VE6IE
> not that I've ever used the pseudo AM mode on my "7", but I'm a retro
> guy at heart. I'm curious about this almost completely abandoned mode
> that, despite its limitations, seems to have exquisite properties
>

If you think AM is almost abandoned listen any evening around 3.890.
Most are using old tube gear like my Globe King 500A.

--
Charles Ring W3NU

19223. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 03:36:08 UTC
From: Brenton Crowhurst
Topic: 19215 Message: 19223

3890 it is! 10/S9 noise on my Butternut, at the moment, but I'll keep a listen . . .

I've been looking at web images of your Globe King, and I'm thinking that could be a nice edition to the shack. Especially on such cold winter nights as this.

Or perhaps a pair of old tubular Drake twins.

73

de

Brenton Crowhurst, VE6IE

On Mar 4, 2014, at 7:46 PM, Charles Ring <w3nu@...> wrote:

>
> On 3/4/2014 2107, docbrent wrote:
>>
>> Say Jim,
>> I'm curious to know a bit more about this AM mod to which you refer.... Not that I use AM, but I think I might just fit right in there!
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>> Brenton Crowhurst, VE6IE
>> not that I've ever used the pseudo AM mode on my "7", but I'm a retro guy at heart. I'm curious about this almost completely abandoned mode that, despite its limitations, seems to have exquisite properties
>>
>
> If you think AM is almost abandoned listen any evening around 3.890. Most are using old tube gear like my Globe King 500A.
>
> --
> Charles Ring W3NU
>
>

19224. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 03:38:39 UTC
From: VE3AX/7
Topic: 19198 Message: 19224

OK Guys – you now have no excuse! Your new Drake line will be “wife-approved” and will look right at home in your living room!!!! Imagine! You in your grey suit, pipe hanging from your lips, and your darling wife in a DRESS, sipping her post-dinner coffee and watching you work DX!

All you need is the Design Industries desk; a Diplomat like Ray’s at only $139, or the upscale Ambassador, and you can start your next DXCC right from the living room! A dream come true!

OK – that was 1965 – good luck with that nowadays! Unless you’re a bachelor. I am not.

I have posted 2 ads and W2NSD’s review of the Diplomat in my pics files. They are taken from a web post of 73 Magazine, dated Oct 1965. Hopefully you can read them. Note the radios on the desk in Wayne’s review! He knew what he was doing.

Not the best resolution but it should do for now. A bigger monitor will help. Once I find my full colour Design Industries catalogue I’ll re-scan and post others.

Have fun!

73

Peter
VE3AX/7

From: baysideanh@...
Sent: Tuesday, March 04, 2014 4:41 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Interesting reading all he information on AES and Ray's advertisement. I can remember it and

also drooling over all the Drake gear. Peter, I didn't dispose of my old QST's, I can't look at

them now as they are stored on shelves at my cottage. I'm due for a trip there in the next week or

so to check the place out so I will definitely look for the ad.

Bruce VE1ANH

19225. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 04:14:39 UTC
From: Leon Zebrick
Topic: 19215 Message: 19225

I've had a little fun lately with my TR7 on 160 mtr. AM. A fellow in Oklahoma runs a converted broadcast transmitter and a Collins receiver with an outboard synchronous detector. Claims it makes the TR7 with its SSB full carrier sound tolerable. Give it a try. The gang on Top Band will always welcome newcomers. I tune a qtr. wave wire that I launched up into the pines with a slingshot. That and a good counterpoise and you are in business. Actually that's a noisy receive antenna, but it will get you started.

Sent from my iPhone

On Mar 4, 2014, at 9:36 PM, Brenton Crowhurst <docbrent@...> wrote:

> 3890 it is! 10/S9 noise on my Butternut, at the moment, but I'll keep a listen . . .
>
>
> I've been looking at web images of your Globe King, and I'm thinking that could be a nice edition to the shack. Especially on such cold winter nights as this.
>
> Or perhaps a pair of old tubular Drake twins.
>
> 73
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> de
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> Brenton Crowhurst, VE6IE
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> On Mar 4, 2014, at 7:46 PM, Charles Ring <w3nu@...> wrote:
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>>
>> On 3/4/2014 2107, docbrent wrote:
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>>> not that I've ever used the pseudo AM mode on my "7", but I'm a retro guy at heart. I'm curious about this almost completely abandoned mode that, despite its limitations, seems to have exquisite properties
>>
>> If you think AM is almost abandoned listen any evening around 3.890. Most are using old tube gear like my Globe King 500A.
>>
>> --
>> Charles Ring W3NU
>
>

19226. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 04:20:37 UTC
From: Whitebear1122
Topic: 19198 Message: 19226

I dunno Peter. Putting that desk in the living may more likely be "divorce approved" rather than "wife approved" hi hi That desk is very nice looking though! When the time comes to have the shack on the main floor I'll have my brother-in-law make me one. I have my own radio room in the basement, and the rule is that nothing crosses the line at the door to be stored in the finished basement.

73, Scott WA9WFA

On Mar 4, 2014, at 9:38 PM, "VE3AX/7" <ve3ax@...> wrote:

>
>
> OK Guys – you now have no excuse! Your new Drake line will be “wife-approved” and will look right at home in your living room!!!! Imagine! You in your grey suit, pipe hanging from your lips, and your darling wife in a DRESS, sipping her post-dinner coffee and watching you work DX!
>
> All you need is the Design Industries desk; a Diplomat like Ray’s at only $139, or the upscale Ambassador, and you can start your next DXCC right from the living room! A dream come true!
>
> OK – that was 1965 – good luck with that nowadays! Unless you’re a bachelor. I am not.
>
> I have posted 2 ads and W2NSD’s review of the Diplomat in my pics files. They are taken from a web post of 73 Magazine, dated Oct 1965. Hopefully you can read them. Note the radios on the desk in Wayne’s review! He knew what he was doing.
>
> Not the best resolution but it should do for now. A bigger monitor will help. Once I find my full colour Design Industries catalogue I’ll re-scan and post others.
>
> Have fun!
>
> 73
>
> Peter
> VE3AX/7
>

19227. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 04:37:10 UTC
From: Jim Shorney
Topic: 19215 Message: 19227

Heh... We'll blame the email program.

The TR-7 has been modified to use the 6 KHz filter on AM for transmit. I actually had this idea some years ago, but Jeff Covelli WA8SAJ beat me to the punch in implementation and published this article:

http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_AM_Mod/TR7_AM-P1.htm

That's the basic mod. It can, of course, be adapted to use whichever filter slot your AM filter is in. I adapted it to switch the wide filter in automatically on AM transmit via a small SMT relay hot-glued "dead bug" style to the bottom of the parent board instead of using the "Store" switch as Jeff did. I also improved the mod in that Jeff did not include a method to properly center the TX signal in the filter passband. Probably a trivial omission, but it bugged me. :) It was simpler than it sounds, just about everything needed to accomplish it was already there. IIRC I posted a note to Drakelist after I did it. I don't think anyone noticed....

The op at W1AW/7 was Paul KW7Y, and he was operating remotely from California. His signal was strong and clear on both 15 today and 10 last Friday, and the audio was quite good. It was a bit on the surreal side hearing W1AW/7 with a British accent coming from my speaker so clearly.

I got an idea why his signal was so good when I looked at this:

http://myplace.frontier.com/~paulbaldock/camano/

I spotted three pieces that I also own in his commercial boatanchor pic. No Drakes, sadly.

73

-Jim
NU0C

On Tue, 4 Mar 2014 19:27:04 -0700 (MST), Docbrent wrote:

>Judging from how that posted, one of us is too drunk to be handling high voltage -- me or my email program.
>
>cw, cw, cw px? . . . Go ahead breaker 1-9!
>
>----- Original Message -----From: docbrent <docbrent@...>To: DrakeRadio@yahoogroups.comSent: Tue, 04 Mar 2014 19:07:47 -0700 (MST)Subject: Re: [DrakeRadio] W1AW/7 on AM!
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>that the TR-7 was normally single-sideband AM but I was transmitting full DSB.
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>What a fun contact!
>
>He's on 21.420 right now if anyone sees this soon enough...
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>73
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>-Jim
>
>NU0C
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>
>"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5
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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19228. Trade 28.5 for 28.0 Crystal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 04:42:00 UTC
From: <rochep@...>
Topic: 19228 Message: 19228

My new Drake R4A came with a 39.6 MHz crystal (for 28.5-29 MHz), but I do not operate phone. Anyone have a 39.1 MHz crystal (for 28.0-28.5 MHz) to trade? (Maybe you are phone op and have no interest in CW.)

Email Paul at k3stx@arrl.net

19229. Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 05:37:13 UTC
From: VE3AX/7
Topic: 19198 Message: 19229

Scott:

I get a kick out of that “wife-approved” slogan they used in their ads. I have to wonder how many guys actually got their wives to agree to putting their “shack” in the living room. One of the CCA guys has a lovely looking house with a gorgeous shack in HIS living room, but there appears to be no wife involved. My wife’s a ham (VE7DR/VE3EMS – my original call) of 23 years now (married 38 yrs) but there is still no way there’s a radio going in the living room unless it can play CD’s. I did manage a restored Radiola 18 that resides in the hall between the living and dining rooms, but that was a gift to my elderly parents some 10 years ago that has come back to us.

I managed to find the original AES ad in a 73 Mag from November 1970 on the net and it is now included in my Photos section. Hopefully I haven’t violated any copyright laws.

My shack is in a separate building 75’ from the house. The service bench is in the basement though. Both are finished. Storage areas for radio parts/gear is a constant state of “negotiation” and upheaval however! I know well what you mean about crossing that line!

Now this bit of advice is off topic but will throw it in here seeing as we’re talking about shacks – do NOT use fiberglas insulation if you’re trying to keep radio audio from the rest of the house. Use mineral wool fibre , also known as stonewool. It is fireproof, rodent proof, mildew resistant, and has absolutely astounding sound deadening qualities. I use it every where I can and would never use fiberglas insulation again for an interior wall or ceiling. How do I know? I work for one of the companies that make stonewool , and before I did, I wasted my money on fiberglas for interior insulation. Never again! Both my shack and my service area are lined with the stuff in the walls and ceilings.

73

Peter
VE3AX/7

From: Whitebear1122
Sent: Tuesday, March 04, 2014 8:20 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Ray Grenier's K9KHW AES & Drake QST ad

I dunno Peter. Putting that desk in the living may more likely be "divorce approved" rather than "wife approved" hi hi That desk is very nice looking though! When the time comes to have the shack on the main floor I'll have my brother-in-law make me one. I have my own radio room in the basement, and the rule is that nothing crosses the line at the door to be stored in the finished basement.

73, Scott WA9WFA

On Mar 4, 2014, at 9:38 PM, "VE3AX/7" <ve3ax@...> wrote:

OK Guys – you now have no excuse! Your new Drake line will be “wife-approved” and will look right at home in your living room!!!! Imagine! You in your grey suit, pipe hanging from your lips, and your darling wife in a DRESS, sipping her post-dinner coffee and watching you work DX!

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OK – that was 1965 – good luck with that nowadays! Unless you’re a bachelor. I am not.

I have posted 2 ads and W2NSD’s review of the Diplomat in my pics files. They are taken from a web post of 73 Magazine, dated Oct 1965. Hopefully you can read them. Note the radios on the desk in Wayne’s review! He knew what he was doing.

Not the best resolution but it should do for now. A bigger monitor will help. Once I find my full colour Design Industries catalogue I’ll re-scan and post others.

Have fun!

73

Peter
VE3AX/7

19230. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 06:14:53 UTC
From: Jim Shorney
Topic: 18933 Message: 19230

There's an amusing thought.

I actually know a guy who does repaints on pro-audio mics. He used to work in our Electro-Voice service area. I was thinking of having him do a black RE-20 for me, but then I stumbled into some RE-320 parts and built my own. He has one of my orignal gray +3s that he re-painted in a sort of hammertone gray for me. I need to get that from him and re-assemble it. I'd like to have him re-do my "Lafayette Range Boost" +3B, but I would need a good way to reproduce the markings for the level control.

73

-Jim
NU0C

On Tue, 4 Mar 2014 12:50:49 -0700 (MST), docbrent wrote:

>I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.
>
>
>And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19231. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 12:53:24 UTC
From: Joe Pyles
Topic: 19215 Message: 19231

I have also done the am mod as described in the Jeff Covelli article:

http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_AM_Mod/TR7_AM-P1.htm

and did as Jim said about centering the passband:

https://www.mail-archive.com/drakelist@.../msg09892.html

Also used a small signal relay to switch in the
wide band mod instead of using the store button.
Pin 11/36 on the 2nd if/audio board provides 10v
on AM transmit and was enough to operate the relay.

Now AM is perfect DSB with carrier and I have also received good audio reports.

73, Joe KC9LAD

At 11:37 PM 3/4/2014, you wrote:
>
>
>
>Heh... We'll blame the email program.
>
>The TR-7 has been modified to use the 6 KHz filter on AM for transmit. I
>actually had this idea some years ago, but Jeff Covelli WA8SAJ beat me to the
>punch in implementation and published this article:
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>http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_AM_Mod/TR7_AM-P1.htm
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>slot your AM filter is in. I adapted it to switch the wide filter in
>automatically on AM transmit via a small SMT relay hot-glued "dead bug" style
>to the bottom of the parent board instead of using the "Store" switch as Jeff
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>The op at W1AW/7 was Paul KW7Y, and he was operating remotely from California.
>His signal was strong and clear on both 15 today and 10 last Friday, and the
>audio was quite good. It was a bit on the surreal side hearing W1AW/7 with a
>British accent coming from my speaker so clearly.
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>I got an idea why his signal was so good when I looked at this:
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>http://myplace.frontier.com/~paulbaldock/camano/
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>I spotted three pieces that I also own in his commercial boatanchor pic. No
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>On Tue, 4 Mar 2014 19:27:04 -0700 (MST), Docbrent wrote:
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> >cw, cw, cw px? . . . Go ahead breaker 1-9!
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> >----- Original Message -----From: docbrent
> <docbrent@telus.net>To:
> DrakeRadio@yahoogroups.comSent: Tue, 04 Mar
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> mode that, despite its limitations, seems to have exquisite properties
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> >----- Original Message -----From: Jim Shorney
> <jshorney@...>To:
> DrakeRadio@yahoogroups.comSent: Tue, 04 Mar
> 2014 15:48:43 -0700 (MST)Subject: [DrakeRadio] W1AW/7 on AM!
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>Ham Radio NU0C
>Lincoln, Nebraska, U.S.S.A.
>TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000,
>SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM
>PS/2 - all vintage, all the time!
>
>"Give a man a URL, and he will learn for an
>hour; teach him to Google, and he will learn for a lifetime."
>
>HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
>http://incolor.inetnebr.com/jshorney
>http://www.nebraskaghosts.org
>
>

19232. Resistance measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 13:56:35 UTC
From: <rochep@...>
Topic: 19232 Message: 19232

OK, dumb question time. When taking resistance measurements in troubleshooting, is ONE lead of the VOM attached to chassis ground? I know this is what to do when checking voltages, but ... ...

paul

19233. Re: [DrakeRadio] Resistance measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 14:34:21 UTC
From: Garey Barrell
Topic: 19232 Message: 19233

Paul -

Yes, all V and R measurements are to chassis. Be sure and follow control setting specifications. Also note that they
are made with a VTVM. It DOES make a difference on quite a few measurements.

The typical DMM uses far less current for resistance measurements, and polarity varies from model to model. So if a
reading is 'off', first reverse the meter leads. If still off, LOOK at the circuit and see if there are parallel paths.
Finally, if the measurement includes the power supply bus, all bets are off! Finally +, when circuit changes were made,
the V and R tables weren't always changed as well. Some are easy to spot, e.g., the Cathode pin that is connected
directly to ground, but shows 250 ohms on the table! There 'usta' be a resistor there. Personally, I don't use the
resistance tables at all.

Also, voltage measurements were made with a VTVM. The only hang-up is Grids of oscillators. Here the loading of the
DMM _lead_ will kill many oscillators, upsetting the bias and therefore the expected voltage. This is obviated by the
1M resistor at the tip of VTVM DC probes. If you don't have a VTVM, you can stick a 1M (or so!) resistor on the tip of
the DMM probe and consider the error introduced.

Biggest DMM-caused problem ... Measuring resistances and voltages to two decimal places and fretting over the 2%
variation from the table! Plus or minus 10-15% is just fine for most all.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
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> OK, dumb question time. When taking resistance measurements in troubleshooting, is ONE lead of the VOM attached to
> chassis ground? I know this is what to do when checking voltages, but ... ...
>
> paul
>
>

19234. Re: [DrakeRadio] Resistance measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 15:33:56 UTC
From: Steve Wedge
Topic: 19232 Message: 19234

In a word, yes. BUT, bear in mind that your readings with a DMM may be somewhat different due to differing excitation voltages used with DMM's vs the old Simpson 260 meters that were likely used to create the charts.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 5, 2014, at 8:56 AM, <rochep@...> wrote:
>
> OK, dumb question time. When taking resistance measurements in troubleshooting, is ONE lead of the VOM attached to chassis ground? I know this is what to do when checking voltages, but ... ...
>
> paul
>
>

19235. TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 16:05:42 UTC
From: Leon Zebrick
Topic: 19235 Message: 19235

I'm getting an old friend back into shape. My TR4CW was shelved for several years due to "no audio". Many thanks to Garey for steering me to the Bogen T-175 audio output transformer. It's working great on the green tap. For access to the transformer mounts I removed the PTO, and while it was out I gave it a full PM. Now silky smooth. Receive is fine. Only issue is excessive drive on transmit. I just can't throttle this thing down in CW mode by using the transmitter gain control. Plate circuit loads properly and produces rated output at proper plate current, just can't QRO. CW is clean, low SWR (no apparent parasitic issue in the PA). The Xmit gain pot is good. PA bias adjusted to .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to audio transformer/PTO work, so I did not just introduce this issue. Seems to have crept in during dormancy. Any thoughts gang? Thanks. N5LAZ

19236. RE: Resistance measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 16:55:50 UTC
From: <w5rkl@...>
Topic: 19232 Message: 19236

Not always. It depends on the circuit. You should use the schematic along with the resistance chart when measuring resistance.

You should also learn how to measure voltage drops across a component such as a resistor and then use that voltage drop to determine a voltage at a junction of 2 resistors. It's very easy to do. Here's a simple example with 3 resistors in series connected across a 12VDC source, power supply or battery.

The 3 resistors are 1K, 2K, and 3K. The source voltage is 12VDC. While you can do the simple measurement using the DVM/DMM or VTVM, and connect the meter to measure the voltage drop, if you use Ohms Law you will learn more.

First, calculate the total resistance which, in this circuit, is 6000 ohms (1000 + 2000 + 3000 = 6000).
Next you calculate the total current flowing in the circuit which is .002 amps

12 / 6000 = .002 amps

Next, you calculate the voltage drop across the 1K resistor and that would be "2 VDC"

.002 x 1000 = 2VDC

Next you calculate the voltage at the junction of the 1K and 2K resistors which is 10 VDC

12 - 2 = 10

If you connect your DVM/DMM or VTVM RED lead to the 12VDC positive terminal and the DVM/DMM or VTVM BLACK lead to the junction of the 1K and 2K resistors you will see "2VDC".

Next, what is the voltage drop across the 2K resistor and what's the voltage at the junction of the 2K and 3K resistors?

That's easy, it's 4VDC.

.002 x 2000 = 4VDC

The voltage at the junction of the 2K and 3K resistor will be 6VDC.

10 - 4 = 6VDC

Connect y9our DVM/DMM or VTVM across the 2K resistor and you will see "4VDC".

Sorry for being long, just thought this might be of interest to those who are learning the basics.

73
Mike W5RKL

19237. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 17:11:35 UTC
From: Garey Barrell
Topic: 19235 Message: 19237

Leon -

Assuming the output you are seeing is on frequency, (where it's supposed to be,) possibly a bad ground on the XMTR GAIN
control. Or an open circuit inside the XMTR GAIN control. This is a two section control, one section adjusts the SSB
mic gain, the other section adjusts the unbalance of the Balanced Modulator for CW.

Does the SSB part work ok? Idle current, increasing with modulation?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
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> .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to audio transformer/PTO work, so I did
> not just introduce this issue. Seems to have crept in during dormancy. Any thoughts gang? Thanks. N5LAZ
>

19238. Re: [DrakeRadio] RE: Resistance measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 17:11:36 UTC
From: Barry
Topic: 19232 Message: 19238

Ratios work just as easily. 1K is 1/6 of the total resistance so it will have 1/6 of the total voltage dropped across it (1/6 X 12V = 2V). 2K is 2/6 (1/3) of the total resistance so it will have 1/3 of the total voltage dropped across it (1/3 X 12V = 4V) and so on.

Of course, the Ohm's Law methods need to be understood but sometimes it's easy to take some shortcuts.

Preachin' to the choir...

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: w5rkl@...
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, March 5, 2014 10:55:50 AM
> Subject: [DrakeRadio] RE: Resistance measurements
>
>
>
> Not always. It depends on the circuit. You should use the schematic
> along with the resistance chart when measuring resistance.
>
> You should also learn how to measure voltage drops across a component
> such as a resistor and then use that voltage drop to determine a
> voltage at a junction of 2 resistors. It's very easy to do. Here's a
> simple example with 3 resistors in series connected across a 12VDC
> source, power supply or battery.
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> The 3 resistors are 1K, 2K, and 3K. The source voltage is 12VDC.
> While you can do the simple measurement using the DVM/DMM or VTVM,
> and connect the meter to measure the voltage drop, if you use Ohms
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> ohms (1000 + 2000 + 3000 = 6000).
> Next you calculate the total current flowing in the circuit which is
> .002 amps
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> 12 / 6000 = .002 amps
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> would be "2 VDC"
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> .002 x 1000 = 2VDC
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> Next you calculate the voltage at the junction of the 1K and 2K
> resistors which is 10 VDC
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> 12 - 2 = 10
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> If you connect your DVM/DMM or VTVM RED lead to the 12VDC positive
> terminal and the DVM/DMM or VTVM BLACK lead to the junction of the
> 1K and 2K resistors you will see "2VDC".
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> voltage at the junction of the 2K and 3K resistors?
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> That's easy, it's 4VDC.
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> .002 x 2000 = 4VDC
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> The voltage at the junction of the 2K and 3K resistor will be 6VDC.
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> 10 - 4 = 6VDC
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> Connect y9our DVM/DMM or VTVM across the 2K resistor and you will see
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> Sorry for being long, just thought this might be of interest to those
> who are learning the basics.
>
> 73
> Mike W5RKL
>
>
>

19239. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 17:25:43 UTC
From: Leon Zebrick
Topic: 19235 Message: 19239

SSB works fine. Proper idle current. Carrier suppression good. Output fine with proper IP deflection, ALC action, and watts out. Sounds good on monitor receiver. It seems the only issue with this radio is that it will not QRP in Tune or CW (with key closed). If I detune the preselector I can QRP enough to see effect from the Xmit gain pot, and it seems to work across its range. But with preselector peaked, Xmit gain pot cannot bring power down. Breaking out the schematic I see a regulated +150 volts feeding the pot. Will check that and wiring.

On Wednesday, March 5, 2014 11:12 AM, Garey Barrell <k4oah@mindspring.com> wrote:

Leon -

Assuming the output you are seeing is on frequency, (where it's supposed to be,) possibly a bad ground on the XMTR GAIN
control. Or an open circuit inside the XMTR GAIN control. This is a two section control, one section adjusts the SSB
mic gain, the other section adjusts the unbalance of the Balanced Modulator for CW.

Does the SSB part work ok? Idle current, increasing with modulation?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
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> .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to audio transformer/PTO work, so I did
> not just introduce this issue. Seems to have crept in during dormancy. Any thoughts gang? Thanks. N5LAZ
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19240. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 18:47:45 UTC
From: Garey Barrell
Topic: 19235 Message: 19240

Leon -

Still say bad ground on the CW portion (R74), or element open at full CCW. Along with R75 forms a current source
applied to the BAL MOD. This current through the diodes unbalances the BAL MOD, allowing the CO to go through.
Intended operation applies voltage through R75 to the wiper of R74. Current is increased as the pot is rotated up
(CW). If the ground, (or element is open at the grounded end,) the 500k of the pot is just in series with R75, limiting
the current 'somewhat'.....

Let us know!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> it seems to work across its range. But with preselector peaked, Xmit gain pot cannot bring power down. Breaking out
> the schematic I see a regulated +150 volts feeding the pot. Will check that and wiring.
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> On Wednesday, March 5, 2014 11:12 AM, Garey Barrell <k4oah@...> wrote:
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> Does the SSB part work ok? Idle current, increasing with modulation?
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> 73, Garey - K4OAH
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19241. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:11:12 UTC
From: Leon Zebrick
Topic: 19235 Message: 19241

With wafer sw. set to cal position, gain pot fully ccw, resistance readings to ground are: 496k on far non-grounded end. 12.8 ohms on center terminal and 0.1 ohm on grounded terminal. Center terminal goes to 210k at full CW. Wafer contacts show 0.8 ohm between top of R74 and constant contact terminal when in X-CW position. 150v Reg. is good.

Sent from my iPhone

On Mar 5, 2014, at 12:47 PM, Garey Barrell <k4oah@...> wrote:

> Leon -
>
> Still say bad ground on the CW portion (R74), or element open at full CCW. Along with R75 forms a current source
> applied to the BAL MOD. This current through the diodes unbalances the BAL MOD, allowing the CO to go through.
> Intended operation applies voltage through R75 to the wiper of R74. Current is increased as the pot is rotated up
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> the current 'somewhat'.....
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> Let us know!
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> 73, Garey - K4OAH
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19242. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:20:35 UTC
From: Garey Barrell
Topic: 19235 Message: 19242

What happens in AM??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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19243. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:26:06 UTC
From: Garey Barrell
Topic: 19235 Message: 19243

Measure DC voltage on top terminal of XMTR GAIN control in _CAL_ position as control is varied from CCW to CW.

73, Garey - K4OAH
Glen Allen, VA

Leon Zebrick wrote:
>
>
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> end. 12.8 ohms on center terminal and 0.1 ohm on grounded terminal. Center terminal goes to 210k at full CW. Wafer
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19244. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:29:42 UTC
From: Leon Zebrick
Topic: 19235 Message: 19244

Interesting. Only 8 watts carrier, even at full CW of xmit gain pot, but I do get a full power ssb emission when modulating. Side band sw is set to x. Btw I made a ssb contact with good report. X-CW/tune is stuck at 140 watts out

Sent from my iPhone

On Mar 5, 2014, at 1:20 PM, Garey Barrell <k4oah@...> wrote:

> What happens in AM??
>
> 73, Garey - K4OAH
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19245. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:40:19 UTC
From: Docbrent
Topic: 18933 Message: 19245

I read the impedance of the EV RE-320 is 150 ohms -- isn't that a little low for the TR7? How do you get it to match, and how's it sound, Jim?

Brenton
VE6IE

----- Original Message -----

From: "Jim Shorney" <jshorney@inebraska.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, March 4, 2014 11:14:53 PM
Subject: Re: [DrakeRadio] Drake Microphones

There's an amusing thought.

I actually know a guy who does repaints on pro-audio mics. He used to work in our Electro-Voice service area. I was thinking of having him do a black RE-20 for me, but then I stumbled into some RE-320 parts and built my own. He has one of my orignal gray +3s that he re-painted in a sort of hammertone gray for me. I need to get that from him and re-assemble it. I'd like to have him re-do my "Lafayette Range Boost" +3B, but I would need a good way to reproduce the markings for the level control.

73

-Jim
NU0C

On Tue, 4 Mar 2014 12:50:49 -0700 (MST), docbrent wrote:

>I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.
>
>
>And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."

--
“There’s something out of place – let’s go and poke it with a stick.” – The Doctor, "Amy’s Choice"

19246. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 19:43:11 UTC
From: Garey Barrell
Topic: 19235 Message: 19246

OK, that's normal AM.

Do the voltage measurement at the top of R74 in CAL position.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
>
>
> Interesting. Only 8 watts carrier, even at full CW of xmit gain pot, but I do get a full power ssb emission when
> modulating. Side band sw is set to x. Btw I made a ssb contact with good report. X-CW/tune is stuck at 140 watts out
>
> Sent from my iPhone
>
> On Mar 5, 2014, at 1:20 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
>> What happens in AM??
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
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19247. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:00:57 UTC
From: Leon Zebrick
Topic: 19235 Message: 19247

.003 - 84.9. Out of curiosity I opened connection between R75 and R74. No change, other than loss of side tone. Checked R75 -- good.

Sent from my iPhone

On Mar 5, 2014, at 1:26 PM, Garey Barrell <k4oah@...> wrote:

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19248. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:07:13 UTC
From: Leon Zebrick
Topic: 19235 Message: 19248

With R74 divorced from +VDC and still full output, would that not point to an issue with balanced modulator? But why is the rig working properly in ssb mode? Really appreciate your time and help.

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19249. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:26:53 UTC
From: Garey Barrell
Topic: 19235 Message: 19249

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19250. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:30:07 UTC
From: Leon Zebrick
Topic: 19235 Message: 19250

85 volts fully CW.

Sent from my iPhone

On Mar 5, 2014, at 2:26 PM, Garey Barrell <k4oah@...> wrote:

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19251. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:34:29 UTC
From: Garey Barrell
Topic: 19235 Message: 19251

I don't see any relationship between R74, 75 re SIDETONE......

73, Garey - K4OAH
Glen Allen, VA

Leon Zebrick wrote:

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> With R74 divorced from +VDC and still full output, would that not point to an issue with balanced modulator? But why
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19252. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:34:05 UTC
From: Leon Zebrick
Topic: 19235 Message: 19252

Would it hurt to attempt a balanced modulator alignment? I can detune enough with preselector (rf tune) to get IP low enough

Sent from my iPhone

On Mar 5, 2014, at 2:30 PM, Leon Zebrick <lzebrick@...> wrote:

> 85 volts fully CW.
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> Sent from my iPhone
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> On Mar 5, 2014, at 2:26 PM, Garey Barrell <k4oah@...> wrote:
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19253. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:40:30 UTC
From: Garey Barrell
Topic: 19235 Message: 19253

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>
> No virus found in this message.

> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7155 - Release Date: 03/05/14
>

19254. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 20:45:07 UTC
From: Leon Zebrick
Topic: 19235 Message: 19254

No I was in cal. In CW voltage drops to 0.16. I'm going to attempt balanced modulator aligned per manual. Don't see what that can hurt. Perhaps those years in the attic...

Sent from my iPhone

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> >>>> >> > > .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to
audio transformer/PTO work, so
> >>>> I did
> >>>> >> > > not just introduce this issue. Seems to have crept in during dormancy. Any
thoughts gang? Thanks. N5LAZ

> >>>> >> > >
> >>>> >>
> >>>>
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> >
> >
> >
> > No virus found in this message.
> > Checked by AVG - www.avg.com <http://www.avg.com>
> > Version: 2014.0.4335 / Virus Database: 3705/7155 - Release Date: 03/05/14
> >
>
>

19255. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:01:21 UTC
From: Garey Barrell
Topic: 19235 Message: 19255

OK.. Can't hurt.

1. In SSB MODE, the BAL MOD nulls the CAR OSC, and the resulting DSB, suppressed carrier signal output to filters.

2. In CW MODE, a DC current is passed through two of the four diodes in the BAL MOD, severely unbalancing it, allowing
the CAR OSC to pass through at near full level. The CAR OSC frequency is shifted up ~ 1kHz to put it within the LSB
filter passband, to pass through with minimum attentuation.

The 0.16 V you are measuring at the top of R74 in CW is kind of low. The diodes ARE Germanium, but typically the
voltage is around a half volt. Perhaps a shorted diode? The diodes are inside T14, and there have been cases where one
of the diode leads shorts to the inside of the can.

73, Garey - K4OAH
Glen Allen, VA

Leon Zebrick wrote:
>
>
> No I was in cal. In CW voltage drops to 0.16. I'm going to attempt balanced modulator aligned per manual. Don't see
> what that can hurt. Perhaps those years in the attic...
>
> Sent from my iPhone
>
> On Mar 5, 2014, at 2:40 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>
>> In CW MODE?? If so would indicate an open coax. The top of R74 is tied to two diode junctions in series to ground.
>> Should not get to more than a half volt or so. Measure voltage at the BAL MOD coax.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Leon Zebrick wrote:
>> >
>> >
>> > 85 volts fully CW.
>> >
>> > Sent from my iPhone
>> >
>> > On Mar 5, 2014, at 2:26 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>

>> <mailto:k4oah@...>> wrote:
>> >
>> >> What does voltage at the top of R74 do in CW. I'm suspecting a shorted coax now.
>> >> 73, Garey - K4OAH
>> >> Glen Allen, VA
>> >>
>> >>
>> >> Leon Zebrick wrote:
>> >>> With R74 divorced from +VDC and still full output, would that not point to an issue with balanced modulator? But
>> >>> why is the rig working properly in ssb mode? Really appreciate your time and help.
>> >>>
>> >>> Sent from my iPhone
>> >>>
>> >>> On Mar 5, 2014, at 1:26 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
>> <mailto:k4oah@...>> wrote:
>> >>>
>> >>>> Measure DC voltage on top terminal of XMTR GAIN control in _CAL_ position as control is varied from CCW to CW.
>> >>>>
>> >>>> 73, Garey - K4OAH
>> >>>> Glen Allen, VA
>> >>>>
>> >>>> Leon Zebrick wrote:
>> >>>> >
>> >>>> >
>> >>>> > With wafer sw. set to cal position, gain pot fully ccw, resistance readings to ground are: 496k on far
>> non-grounded
>> >>>> > end. 12.8 ohms on center terminal and 0.1 ohm on grounded terminal. Center terminal goes to 210k at full CW. Wafer
>> >>>> > contacts show 0.8 ohm between top of R74 and constant contact terminal when in X-CW position. 150v Reg. is good.
>> >>>> >
>> >>>> > Sent from my iPhone
>> >>>> >
>> >>>> > On Mar 5, 2014, at 12:47 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
>> <mailto:k4oah@...>
>> >>>> <mailto:k4oah@...>> wrote:
>> >>>> >
>> >>>> >> Leon -
>> >>>> >>
>> >>>> >> Still say bad ground on the CW portion (R74), or element open at full CCW. Along with R75 forms a current source
>> >>>> >> applied to the BAL MOD. This current through the diodes unbalances the BAL MOD, allowing the CO to go through.
>> >>>> >> Intended operation applies voltage through R75 to the wiper of R74. Current is increased as the pot is rotated up
>> >>>> >> (CW). If the ground, (or element is open at the grounded end,) the 500k of the pot is just in series with R75,

>> >>>> limiting
>> >>>> >> the current 'somewhat'.....
>> >>>> >>
>> >>>> >> Let us know!
>> >>>> >>
>> >>>> >> 73, Garey - K4OAH
>> >>>> >> Glen Allen, VA
>> >>>> >>
>> >>>> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> >>>> >> and TR-4/C Service Supplement CDs
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>> >>>> >>
>> >>>> >> Leon Zebrick wrote:
>> >>>> >> >
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with proper IP deflection, ALC
>> action,
>> >>>> >> > and watts out. Sounds good on monitor receiver. It seems the only issue with
this radio is that it will not
>> QRP in
>> >>>> >> > Tune or CW (with key closed). If I detune the preselector I can QRP enough to
see effect from the Xmit gain
>> >>>> pot, and
>> >>>> >> > it seems to work across its range. But with preselector peaked, Xmit gain pot
cannot bring power down.
>> >>>> Breaking out
>> >>>> >> > the schematic I see a regulated +150 volts feeding the pot. Will check that
and wiring.
>> >>>> >> >
>> >>>> >> >
>> >>>> >> > On Wednesday, March 5, 2014 11:12 AM, Garey Barrell <k4oah@...
<mailto:k4oah@...>
>> <mailto:k4oah@...>
>> >>>> <mailto:k4oah@...>> wrote:
>> >>>> >> > Leon -
>> >>>> >> >
>> >>>> >> > Assuming the output you are seeing is on frequency, (where it's supposed to
be,) possibly a bad ground on the
>> >>>> XMTR GAIN
>> >>>> >> > control. Or an open circuit inside the XMTR GAIN control. This is a two
section control, one section adjusts
>> >>>> the SSB
>> >>>> >> > mic gain, the other section adjusts the unbalance of the Balanced Modulator
for CW.
>> >>>> >> >
>> >>>> >> > Does the SSB part work ok? Idle current, increasing with modulation?
>> >>>> >> >
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>> >>>> thanks to
>> >>>> >> > > Garey for steering me to the Bogen T-175 audio output transformer. It's
working great on the green tap. For
>> >>>> access
>> >>>> >> > > to the transformer mounts I removed the PTO, and while it was out I gave it
a full PM. Now silky smooth.
>> >>>> Receive is
>> >>>> >> > > fine. Only issue is excessive drive on transmit. I just can't throttle this
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>> using the
>> >>>> >> > > transmitter gain control. Plate circuit loads properly and produces rated
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>> >>>> just can't
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thoughts gang? Thanks. N5LAZ
>> >>>> >> > >
>> >>>> >>
>> >>>>
>> >>
>> >
>> >
>>

19256. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:01:27 UTC
From: Leon Zebrick
Topic: 19235 Message: 19256

Garey. With the carrier balance control fully ccw and c127 adjusted for null, things are much better, but I'm sure not as they are supposed to be. With plate off resonance, IP is 225 Ma. at minimum gain. That's the worst case now in "Tune". I was expecting a null with the carrier balance control but it brought IP down in a linear fashion - no null. SSB performance seems great with good carrier suppression. I can let this ride. At least I won't hit excessive IP when off resonance and gain fully ccw.

Sent from my iPhone

On Mar 5, 2014, at 1:43 PM, Garey Barrell <k4oah@...> wrote:

> OK, that's normal AM.
>
> Do the voltage measurement at the top of R74 in CAL position.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Leon Zebrick wrote:
> >
> >
> > Interesting. Only 8 watts carrier, even at full CW of xmit gain pot, but I do get a full power ssb emission when
> > modulating. Side band sw is set to x. Btw I made a ssb contact with good report. X-CW/tune is stuck at 140 watts out
> >
> > Sent from my iPhone
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> >> What happens in AM??
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> >> 73, Garey - K4OAH
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> >> > end. 12.8 ohms on center terminal and 0.1 ohm on grounded terminal. Center terminal goes to 210k at full CW. Wafer
> >> > contacts show 0.8 ohm between top of R74 and constant contact terminal when in X-CW position. 150v Reg. is good.
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> >> >> Leon -
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> >> >> Still say bad ground on the CW portion (R74), or element open at full CCW. Along with R75 forms a current source
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> >> >> 73, Garey - K4OAH
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> >> >> >
> >> >>
> >>
>
>

19257. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:07:42 UTC
From: Leon Zebrick
Topic: 19235 Message: 19257

I'm thinking shorted diode. But as mentioned, I'll limp along since I apparently compensated with the adjustments, even though one is at its "end". This has been great. And again, the Bogen audio transformer did the trick! Had to hit the tabs on my grinder, but it fits fine. Thank you again.

Sent from my iPhone

On Mar 5, 2014, at 3:01 PM, Leon Zebrick <lzebrick@...> wrote:

> Garey. With the carrier balance control fully ccw and c127 adjusted for null, things are much better, but I'm sure not as they are supposed to be. With plate off resonance, IP is 225 Ma. at minimum gain. That's the worst case now in "Tune". I was expecting a null with the carrier balance control but it brought IP down in a linear fashion - no null. SSB performance seems great with good carrier suppression. I can let this ride. At least I won't hit excessive IP when off resonance and gain fully ccw.
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>> >> >
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>> >> >> > > I'm getting an old friend back into shape. My TR4CW was shelved for several years due to "no audio". Many
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>> >> >> > > to the transformer mounts I removed the PTO, and while it was out I gave it a full PM. Now silky smooth.
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>> >> can't
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>> >> >> > > .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to audio transformer/PTO work, so I did

>> >> >> > > not just introduce this issue. Seems to have crept in during dormancy. Any thoughts gang? Thanks. N5LAZ
>> >> >> > >
>> >> >> >
>> >>
>
>

19258. RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:12:23 UTC
From: <w9dz@...>
Topic: 18936 Message: 19258

I placed an order for PIN diodes on the 2nd and they were delivered today. Installed one at location CR904 and now all is right with the world! How the original went missing will remain a mystery. Thanks to all for your help.

Allen, W9DZ

19259. Re: [DrakeRadio] Help with T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:15:10 UTC
From: John Oleksak
Topic: 19217 Message: 19259

Thank you Steve. What do you mean when you say 'make sure it's peaking where it should'? Also, I already have it hooked up to my R4B. When I tried tuning the Xmtr, I had the switch (Xmtr, Rcv, seperate) set to Rcv. Also, the xtal switch is set to norm. I don't have a scope, but a friend has one. The testing may take me some time, but I will do what you describe and post my results later. Thanks again,   John

On Tuesday, March 4, 2014 9:11 PM, Steve Wedge <w1es1982@...> wrote:

John,

First, welcome!

Now - don't assume that the finals are good. If
you're getting a power peak on 15 only, be sure that it's peaking approximately
where it should.

If you have a matching receiver, connect the two
together and see if (1) the receiver can receive signals with the TX in control
of the frequency and (2) if the TX can output using the RX to control the
frequency. The outcome of this will give you a general idea of where the
problem may be.

If you have a scope, check for the carrier oscillator
signal where it connects to the balanced modulator. You have to key the
rig to see this.

The band oscillator should show signals on each band if
you attach the probe to the output of the oscillator where it connects to the
wafer switch.

Finally, the PTO should show output where it enters the
board via the (usually) green and white wire from the PTO.

If the seller was honest and it really was working two
years ago, you do not want to start fiddling with the RF trimmers just
yet. Check for these signals.

Also, make sure that your XTALS switch is set to
NORM.

73 & GL,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a
banana.

All my computers have my signature with various
pearls of wisdom appended thereto.

From: John Oleksak
Sent: Tuesday, March 04, 2014 8:42 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] Help with T4XB

Just
picked one up on Ebay...supposedly worked 2 years ago, it's been sitting in a closet till I bought it. Seems to be in pretty nice shape, but I can't get it to load up properly on any band, and it only puts out almost 40 watts on 15 meters only...won't load up on any other band. I followed the instructions to a tee, many times. I did set the bias as directed. Im using a dummy load to try it out. One tube was out when I received it, I just plugged it back in, but realize that doesn't mean it's good. They all light up, but that's all I can say. I cleaned all controls and switches with deoxit, and tube sockets. Im trying not to mess with it too much, especially worried about damaging the finals. I'm good with electronics, but have never dug too deep into the Drake units as far as how they're supposed to work (the technical part). Any idea of where to start, what to look for, what to replace? Tube maybe? I don't know where to go from here. Thanks.
John KD2BLY

19260. Re: [DrakeRadio] TR4 CW, Excessive Transmit Drive

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:27:04 UTC
From: Garey Barrell
Topic: 19235 Message: 19260

OK.. It certainly points to a diode. I would suggest one more test. Check the resistance to ground from the center coax
lead in SSB mode. Then reverse the polarity of the ohmmeter probes and check again. If you have a DMM with a diode
test function, you should measure about two diode junctions to ground in either polarity, and the readings should be
pretty close to each other.

73, Garey - K4OAH
Glen Allen, VA

Leon Zebrick wrote:

>
>
> I'm thinking shorted diode. But as mentioned, I'll limp along since I apparently compensated with the adjustments,
> even though one is at its "end". This has been great. And again, the Bogen audio transformer did the trick! Had
> to hit the tabs on my grinder, but it fits fine. Thank you again.
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> Sent from my iPhone
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> On Mar 5, 2014, at 3:01 PM, Leon Zebrick <lzebrick@... <mailto:lzebrick@...>> wrote:
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>> null. SSB performance seems great with good carrier suppression. I can let this ride. At least I won't hit
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>> Sent from my iPhone
>>
>> On Mar 5, 2014, at 1:43 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>> wrote:
>>
>>> OK, that's normal AM.
>>>
>>> Do the voltage measurement at the top of R74 in CAL position.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>

>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com <http://www.k4oah.com>>
>>>
>>> Leon Zebrick wrote:
>>> >
>>> >
>>> > Interesting. Only 8 watts carrier, even at full CW of xmit gain pot, but I do get a full power ssb emission when
>>> > modulating. Side band sw is set to x. Btw I made a ssb contact with good report. X-CW/tune is stuck at 140 watts out
>>> >
>>> > Sent from my iPhone
>>> >
>>> > On Mar 5, 2014, at 1:20 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
>>> <mailto:k4oah@...>> wrote:
>>> >
>>> >> What happens in AM??
>>> >>
>>> >> 73, Garey - K4OAH
>>> >> Glen Allen, VA
>>> >>
>>> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> >> and TR-4/C Service Supplement CDs
>>> >> <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com>>
>>> >>
>>> >> Leon Zebrick wrote:
>>> >> >
>>> >> >
>>> >> > With wafer sw. set to cal position, gain pot fully ccw, resistance readings to ground are: 496k on far non-grounded
>>> >> > end. 12.8 ohms on center terminal and 0.1 ohm on grounded terminal. Center terminal goes to 210k at full CW. Wafer
>>> >> > contacts show 0.8 ohm between top of R74 and constant contact terminal when in X-CW position. 150v Reg. is good.
>>> >> >
>>> >> > Sent from my iPhone
>>> >> >
>>> >> > On Mar 5, 2014, at 12:47 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>
>>> <mailto:k4oah@...>
>>> >> <mailto:k4oah@...>> wrote:
>>> >> >
>>> >> >> Leon -
>>> >> >>
>>> >> >> Still say bad ground on the CW portion (R74), or element open at full CCW. Along with R75 forms a current source
>>> >> >> applied to the BAL MOD. This current through the diodes unbalances the BAL MOD, allowing the CO to go through.
>>> >> >> Intended operation applies voltage through R75 to the wiper of R74. Current is increased as the pot is rotated up

>>> >> >> (CW). If the ground, (or element is open at the grounded end,) the 500k of the pot is just in series with R75,
>>> >> limiting
>>> >> >> the current 'somewhat'.....
>>> >> >>
>>> >> >> Let us know!
>>> >> >>
>>> >> >> 73, Garey - K4OAH
>>> >> >> Glen Allen, VA
>>> >> >>
>>> >> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> >> >> and TR-4/C Service Supplement CDs
>>> >> >> <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com> <http://www.k4oah.com>>
>>> >> >>
>>> >> >> Leon Zebrick wrote:
>>> >> >> >
>>> >> >> >
>>> >> >> > SSB works fine. Proper idle current. Carrier suppression good. Output fine with proper IP deflection, ALC
>>> action,
>>> >> >> > and watts out. Sounds good on monitor receiver. It seems the only issue with this radio is that it will not
>>> QRP in
>>> >> >> > Tune or CW (with key closed). If I detune the preselector I can QRP enough to see effect from the Xmit gain
>>> pot, and
>>> >> >> > it seems to work across its range. But with preselector peaked, Xmit gain pot cannot bring power down.
>>> Breaking out
>>> >> >> > the schematic I see a regulated +150 volts feeding the pot. Will check that and wiring.
>>> >> >> >
>>> >> >> >
>>> >> >> > On Wednesday, March 5, 2014 11:12 AM, Garey Barrell <k4oah@... <mailto:k4oah@...>
>>> <mailto:k4oah@...>
>>> >> <mailto:k4oah@...>> wrote:
>>> >> >> > Leon -
>>> >> >> >
>>> >> >> > Assuming the output you are seeing is on frequency, (where it's supposed to be,) possibly a bad ground on the
>>> >> XMTR GAIN
>>> >> >> > control. Or an open circuit inside the XMTR GAIN control. This is a two section control, one section adjusts
>>> the SSB
>>> >> >> > mic gain, the other section adjusts the unbalance of the Balanced Modulator for CW.
>>> >> >> >
>>> >> >> > Does the SSB part work ok? Idle current, increasing with modulation?

>>> >> >> >
>>> >> >> > 73, Garey - K4OAH
>>> >> >> > Glen Allen, VA
>>> >> >> >
>>> >> >> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> >> >> > and TR-4/C Service Supplement CDs
>>> >> >> > <www.k4oah.com <http://www.k4oah.com> <http://www.k4oah.com>
<http://www.k4oah.com>>
>>> >> >> >
>>> >> >> > Leon Zebrick wrote:
>>> >> >> > >
>>> >> >> > >
>>> >> >> > > I'm getting an old friend back into shape. My TR4CW was shelved for several
years due to "no audio". Many
>>> >> thanks to
>>> >> >> > > Garey for steering me to the Bogen T-175 audio output transformer. It's
working great on the green tap.
>>> For access
>>> >> >> > > to the transformer mounts I removed the PTO, and while it was out I gave it a
full PM. Now silky smooth.
>>> >> Receive is
>>> >> >> > > fine. Only issue is excessive drive on transmit. I just can't throttle this
thing down in CW mode by using the
>>> >> >> > > transmitter gain control. Plate circuit loads properly and produces rated
output at proper plate current,
>>> just
>>> >> can't
>>> >> >> > > QRO. CW is clean, low SWR (no apparent parasitic issue in the PA). The Xmit
gain pot is good. PA bias
>>> adjusted to
>>> >> >> > > .1A. No attempt was made at alignment. NOTE: I noticed this problem prior to
audio transformer/PTO work,
>>> so I did
>>> >> >> > > not just introduce this issue. Seems to have crept in during dormancy. Any
thoughts gang? Thanks. N5LAZ
>>> >> >> > >
>>> >> >> >
>>> >>
>>>
>
>
>
>
> No virus found in this message.
> Checked by AVG - www.avg.com <http://www.avg.com>
> Version: 2014.0.4335 / Virus Database: 3705/7155 - Release Date: 03/05/14
>

19261. Re: [DrakeRadio] Help with T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 21:32:56 UTC
From: Garey Barrell
Topic: 19217 Message: 19261

When you load it on 15M, does the RF TUNE peak in the 15M segment of the scale? The PLATE control should dip at about 4
and the LOAD control about the same. What does the Plate meter read when you are getting 40W output?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John Oleksak wrote:
>
>
> Thank you Steve. What do you mean when you say 'make sure it's peaking where it should'? Also, I already have it
> hooked up to my R4B. When I tried tuning the Xmtr, I had the switch (Xmtr, Rcv, seperate) set to Rcv. Also, the xtal
> switch is set to norm. I don't have a scope, but a friend has one. The testing may take me some time, but I will do
> what you describe and post my results later. Thanks again, John
>
>
> On Tuesday, March 4, 2014 9:11 PM, Steve Wedge <w1es1982@...> wrote:
> John,
> First, welcome!
> Now - don't assume that the finals are good. If you're getting a power peak on 15 only, be sure that it's peaking
> approximately where it should.
> If you have a matching receiver, connect the two together and see if (1) the receiver can receive signals with the TX
> in control of the frequency and (2) if the TX can output using the RX to control the frequency. The outcome of this
> will give you a general idea of where the problem may be.
> If you have a scope, check for the carrier oscillator signal where it connects to the balanced modulator. You have to
> key the rig to see this.
> The band oscillator should show signals on each band if you attach the probe to the output of the oscillator where it
> connects to the wafer switch.
> Finally, the PTO should show output where it enters the board via the (usually) green and white wire from the PTO.
> If the seller was honest and it really was working two years ago, you do not want to start fiddling with the RF
> trimmers just yet. Check for these signals.

> Also, make sure that your XTALS switch is set to NORM.
> 73 & GL,
> Steve Wedge, W1ES/4
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> *From:* John Oleksak <mailto:kd2bly@...>
> *Sent:* Tuesday, March 04, 2014 8:42 PM
> *To:* drakeradio@yahoogroups.com <mailto:drakeradio@yahoogroups.com>
> *Subject:* [DrakeRadio] Help with T4XB
>
> Just picked one up on Ebay...supposedly worked 2 years ago, it's been sitting in a closet till I bought it. Seems to
> be in pretty nice shape, but I can't get it to load up properly on any band, and it only puts out almost 40 watts on
> 15 meters only...won't load up on any other band. I followed the instructions to a tee, many times. I did set the
> bias as directed. Im using a dummy load to try it out. One tube was out when I received it, I just plugged it back
> in, but realize that doesn't mean it's good. They all light up, but that's all I can say. I cleaned all controls and
> switches with deoxit, and tube sockets. Im trying not to mess with it too much, especially worried about damaging the
> finals. I'm good with electronics, but have never dug too deep into the Drake units as far as how they're supposed to
> work (the technical part). Any idea of where to start, what to look for, what to replace? Tube maybe? I don't know
> where to go from here. Thanks. John KD2BLY
>
>

19262. Re: [DrakeRadio] W1AW/7 on AM!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 22:02:09 UTC
From: Jim Shorney
Topic: 19215 Message: 19262

Thanks for posting the link, Joe. You have saved me the time of looking it up to find out how I did it. I know it's in my notes somewhere, but it's often easier just to look it up online if it's something that I have posted. My notes tend to be pretty messy.

73

-Jim
NU0C

On Wed, 05 Mar 2014 07:53:24 -0500, Joe Pyles wrote:

>I have also done the am mod as described in the Jeff Covelli article:
>
>http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_AM_Mod/TR7_AM-P1.htm
>
>and did as Jim said about centering the passband:
>
>https://www.mail-archive.com/drakelist@.../msg09892.html
>
>Also used a small signal relay to switch in the
>wide band mod instead of using the store button.
>Pin 11/36 on the 2nd if/audio board provides 10v
>on AM transmit and was enough to operate the relay.
>
>Now AM is perfect DSB with carrier and I have also received good audio reports.
>
>73, Joe KC9LAD
>
>
>At 11:37 PM 3/4/2014, you wrote:
>>
>>
>>
>>Heh... We'll blame the email program.
>>
>>The TR-7 has been modified to use the 6 KHz filter on AM for transmit. I
>>actually had this idea some years ago, but Jeff Covelli WA8SAJ beat me to the
>>punch in implementation and published this article:
>>
>>http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7_AM_Mod/TR7_AM-P1.htm
>>
>>That's the basic mod. It can, of course, be adapted to use whichever filter
>>slot your AM filter is in. I adapted it to switch the wide filter in
>>automatically on AM transmit via a small SMT relay hot-glued "dead bug" style
>>to the bottom of the parent board instead of using the "Store" switch as Jeff

>>did. I also improved the mod in that Jeff did not include a method to properly
>>center the TX signal in the filter passband. Probably a trivial omission, but
>>it bugged me. :) It was simpler than it sounds,
>>just about everything needed to
>>accomplish it was already there. IIRC I posted a note to Drakelist after I did
>>it. I don't think anyone noticed....
>>
>>The op at W1AW/7 was Paul KW7Y, and he was operating remotely from California.
>>His signal was strong and clear on both 15 today and 10 last Friday, and the
>>audio was quite good. It was a bit on the surreal side hearing W1AW/7 with a
>>British accent coming from my speaker so clearly.
>>
>>I got an idea why his signal was so good when I looked at this:
>>
>>http://myplace.frontier.com/~paulbaldock/camano/
>>
>>I spotted three pieces that I also own in his commercial boatanchor pic. No
>>Drakes, sadly.
>>
>>73
>>
>>-Jim
>>NU0C
>>
>>On Tue, 4 Mar 2014 19:27:04 -0700 (MST), Docbrent wrote:
>>
>> >Judging from how that posted, one of us is too
>> drunk to be handling high voltage -- me or my email program.
>> >
>> >cw, cw, cw px? . . . Go ahead breaker 1-9!
>> >
>> >----- Original Message -----From: docbrent
>> <docbrent@...>To:
>> DrakeRadio@yahoogroups.comSent: Tue, 04 Mar
>> 2014 19:07:47 -0700 (MST)Subject: Re: [DrakeRadio] W1AW/7 on AM!
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >Say Jim,
>> >
>> >I'm curious to know a bit more about this AM
>> mod to which you refer.... Not that I use AM,
>> but I think I might just fit right in there!
>> >

>> >De
>> >Brenton Crowhurst, VE6IE
>> >
>> >
>> >not that I've ever used the pseudo AM mode on
>> my "7", but I'm a retro guy at heart. I'm
>> curious about this almost completely abandoned
>> mode that, despite its limitations, seems to have exquisite properties
>> >
>> >----- Original Message -----From: Jim Shorney
>> <jshorney@...>To:
>> DrakeRadio@yahoogroups.comSent: Tue, 04 Mar
>> 2014 15:48:43 -0700 (MST)Subject: [DrakeRadio] W1AW/7 on AM!
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >I just worked W1AW/7 in Washington state on 15
>> Meters AM using my TR-7 modified
>> >
>> >for wide AM transmit. He said it sounded
>> "fantastic", and picked up on the fact
>> >
>> >that the TR-7 was normally single-sideband AM
>> but I was transmitting full DSB.
>> >
>> >What a fun contact!
>> >
>> >He's on 21.420 right now if anyone sees this soon enough...
>> >
>> >73
>> >
>> >-Jim
>> >
>> >NU0C
>> >
>> >--
>> >
>> >"It's an Earth food. They are called Swedish
>> meatballs! It's a strange thing, but every
>> sentient race has its own version of these
>> Swedish meatballs! I suspect it's one of those
>> great universal mysteries which will either

>> never be explained, or which would drive you
>> mad if you ever learned the truth!" - G'Kar, Babylon 5
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>>
>>--
>>Ham Radio NU0C
>>Lincoln, Nebraska, U.S.S.A.
>>TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000,
>>SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM
>>PS/2 - all vintage, all the time!
>>
>>"Give a man a URL, and he will learn for an
>>hour; teach him to Google, and he will learn for a lifetime."
>>
>>HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
>>http://incolor.inetnebr.com/jshorney
>>http://www.nebraskaghosts.org
>>
>>
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19263. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 22:12:24 UTC
From: Jim Shorney
Topic: 18933 Message: 19263

Indeed, both the impedance and output are on the low side for our radios. I have acquired an inexpensive ART "Tube MP" pro-audio mic preamp to use with the various pro mics that I want to give a spin on the air. I have more than just the RE-20 and RE-320 on hand, and this box supports phantom power for condensers also. It's XLR input for the pro mics with XLR and unbalanced output.

I have the cables made up for the audio connections, but I haven't actually put it on the air yet. I need to rig a PTT switch, and I haven't decided yet how I want to do that.

The black RE-20 and the RE-320 look really cool in a 309 shock mount....

The RE-320 is essentially an RE-27 in an RE-20 casing with built-in EQ options set up to facilitate kick drum usage as the main bullet point, but they seem to have developed a following for vocal work as well.

73

-Jim
NU0C

On Wed, 5 Mar 2014 12:40:19 -0700 (MST), Docbrent wrote:

>I read the impedance of the EV RE-320 is 150 ohms -- isn't that a little low for the TR7? How do you get it to match, and how's it sound, Jim?
>
>Brenton
>VE6IE
>
>----- Original Message -----
>
>From: "Jim Shorney" <jshorney@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Tuesday, March 4, 2014 11:14:53 PM
>Subject: Re: [DrakeRadio] Drake Microphones
>
>
>
>
>
>There's an amusing thought.
>
>I actually know a guy who does repaints on pro-audio mics. He used to work in
>our Electro-Voice service area. I was thinking of having him do a black RE-20
>for me, but then I stumbled into some RE-320 parts and built my own. He has one
>of my orignal gray +3s that he re-painted in a sort of hammertone gray for me.

>I need to get that from him and re-assemble it. I'd like to have him re-do my
>"Lafayette Range Boost" +3B, but I would need a good way to reproduce the
>markings for the level control.
>
>73
>
>-Jim
>NU0C
>
>On Tue, 4 Mar 2014 12:50:49 -0700 (MST), docbrent wrote:
>
>>I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.
>>
>>
>>And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."
>
>--
>â□□Thereâ□□s something out of place â□□ letâ□□s go and poke it with a stick.â□□ â□□ The Doctor, "Amyâ□□s Choice"
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19264. TR-5 Restoration Starts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 22:29:02 UTC
From: <chrismortlock1@...>
Topic: 19264 Message: 19264

Hi All,

Have posted some photo's of the 'barn find' TR-5 in the photo's section.

Here's where I've got to, PS-75 is functional (brought up to voltage on a variac) with no smoke. TR-5 powers up, digital display works on all bands, No audio Output (as per fault in a letter written to Drake buy the previous owner - see my previous post).

Injected Audio tone into the volume control and audio is heard and can be varied.

Checked PTO output - working and seems pretty stable :)
XTAL Osc working with output on all band postions.
BFO osc - no output regardles of mode switch position.

So far Ive checked the obvious bits such as voltage into the board - all OK, check the voltage changes when the mode switch is moved - it does. Checked basic boas voltages on the semiconductors - all seems OK. At one point I think the oscillator started when I was probing the board with a scope, so maybe a dry joint - or perhaps the oscillaotr or crystal is a little lazy ? or perhaps a capacitor is out of spec ?

Thinking that I might take the board out and run it out of the rig with bench power supply and see if I| can get it started.

Anyone have any previous problems with the BFO boards ? any tios or tricks ?

Making progress and have isolated the fault so making good progress :)

Thanks and 73's
Chris
M1ABK

19266. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-05 23:17:47 UTC
From: docbrent
Topic: 18933 Message: 19266

I'd be very interested to hear these different mics when you get them airborne.

I'd be interested if a studio mic could improve my audio, but I'm not interested to go the route of th so-called "hi-fi" eSSB-ers with their processing gear that goes between mic and radio. Have you heard these guys? They have a vocabulary all their own, reminiscent of wine experts to describe characteristics of their sound (e.g., "wet").

I'm not convinced all that gear enhances intelligibility or even listenability (especially when signals are on the weak side of 5-9).

Brenton
VE6 IE

----- Original Message -----From: Jim Shorney <jshorney@...>To: DrakeRadio@yahoogroups.comSent: Wed, 05 Mar 2014 15:12:24 -0700 (MST)Subject: Re: [DrakeRadio] Drake Microphones

Indeed, both the impedance and output are on the low side for our radios. I

have acquired an inexpensive ART "Tube MP" pro-audio mic preamp to use with the

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the RE-20 and RE-320 on hand, and this box supports phantom power for

condensers also. It's XLR input for the pro mics with XLR and unbalanced

output.

I have the cables made up for the audio connections, but I haven't actually put

it on the air yet. I need to rig a PTT switch, and I haven't decided yet how I

want to do that.

The black RE-20 and the RE-320 look really cool in a 309 shock mount....

The RE-320 is essentially an RE-27 in an RE-20 casing with built-in EQ options

set up to facilitate kick drum usage as the main bullet point, but they seem to

have developed a following for vocal work as well.

73

-Jim

NU0C

On Wed, 5 Mar 2014 12:40:19 -0700 (MST), Docbrent wrote:

>I read the impedance of the EV RE-320 is 150 ohms -- isn't that a little low for the TR7? How do you get it to match, and how's it sound, Jim?

>

>Brenton

>VE6IE

>

>----- Original Message -----

>

>From: "Jim Shorney" <jshorney@inebraska.com>

>To: DrakeRadio@yahoogroups.com

>Sent: Tuesday, March 4, 2014 11:14:53 PM

>Subject: Re: [DrakeRadio] Drake Microphones

>

>

>

>

>There's an amusing thought.

>

>I actually know a guy who does repaints on pro-audio mics. He used to work in

>our Electro-Voice service area. I was thinking of having him do a black RE-20

>for me, but then I stumbled into some RE-320 parts and built my own. He has one

>of my orignal gray +3s that he re-painted in a sort of hammertone gray for me.

>I need to get that from him and re-assemble it. I'd like to have him re-do my

>"Lafayette Range Boost" +3B, but I would need a good way to reproduce the

>markings for the level control.

>

>73

>

>-Jim

>NU0C

>

>On Tue, 4 Mar 2014 12:50:49 -0700 (MST), docbrent wrote:

>

>>I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.

>>

>>

>>And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."

>

>--

>?€œThere?€™s something out of place ?€“ let?€™s go and poke it with a stick.?€? ?€“ The Doctor, "Amy?€™s Choice"

>

>

>

>

--

Ham Radio NU0C

Lincoln, Nebraska, U.S.S.A.

TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/

http://incolor.inetnebr.com/jshorney

http://www.nebraskaghosts.org

19267. Re: [DrakeRadio] Help with T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 00:40:19 UTC
From: Steve Wedge
Topic: 19217 Message: 19267

If you were getting output on 15, be sire the pointer is near the area that corresponds to 15m. There are some positions where you could get output that is not where you would expect. A well known area is having the bandswitch at 40 and the rf tune in the 80m area. It amplifies the carrier oscillator at 5645 MHz.

If you have both turned on, can you get signals in the rx using the tx to control?

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 5, 2014, at 4:15 PM, John Oleksak <kd2bly@...> wrote:
>
> Thank you Steve. What do you mean when you say 'make sure it's peaking where it should'? Also, I already have it hooked up to my R4B. When I tried tuning the Xmtr, I had the switch (Xmtr, Rcv, seperate) set to Rcv. Also, the xtal switch is set to norm. I don't have a scope, but a friend has one. The testing may take me some time, but I will do what you describe and post my results later. Thanks again, John
>
>
> On Tuesday, March 4, 2014 9:11 PM, Steve Wedge <w1es1982@triad.rr.com> wrote:
>
> John,
>
> First, welcome!
>
> Now - don't assume that the finals are good. If you're getting a power peak on 15 only, be sure that it's peaking approximately where it should.
>
> If you have a matching receiver, connect the two together and see if (1) the receiver can receive signals with the TX in control of the frequency and (2) if the TX can output using the RX to control the frequency. The outcome of this will give you a general idea of where the problem may be.
>
> If you have a scope, check for the carrier oscillator signal where it connects to the balanced modulator. You have to key the rig to see this.
>
> The band oscillator should show signals on each band if you attach the probe to the output of the oscillator where it connects to the wafer switch.
>
> Finally, the PTO should show output where it enters the board via the (usually) green and white wire from the PTO.
>
> If the seller was honest and it really was working two years ago, you do not want to start fiddling with the RF trimmers just yet. Check for these signals.
>

> Also, make sure that your XTALS switch is set to NORM.
>
> 73 & GL,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: John Oleksak
> Sent: Tuesday, March 04, 2014 8:42 PM
> To: drakeradio@yahoogroups.com
> Subject: [DrakeRadio] Help with T4XB
>
>
> Just picked one up on Ebay...supposedly worked 2 years ago, it's been sitting in a closet till I bought it. Seems to be in pretty nice shape, but I can't get it to load up properly on any band, and it only puts out almost 40 watts on 15 meters only...won't load up on any other band. I followed the instructions to a tee, many times. I did set the bias as directed. Im using a dummy load to try it out. One tube was out when I received it, I just plugged it back in, but realize that doesn't mean it's good. They all light up, but that's all I can say. I cleaned all controls and switches with deoxit, and tube sockets. Im trying not to mess with it too much, especially worried about damaging the finals. I'm good with electronics, but have never dug too deep into the Drake units as far as how they're supposed to work (the technical part). Any idea of where to start, what to look for, what to replace? Tube maybe? I don't know where to go from here. Thanks. John KD2BLY
>
>
>
>

19268. Re: [DrakeRadio] RE: TR-7 S-Meter readings with narrow SSB filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 00:51:22 UTC
From: Jim Shorney
Topic: 18936 Message: 19268

As I recall those diodes have relatively thin, stiff legs that are easy to break if bent more than a couple of times. It may have been accidental and could have even been unnoticed at the time.

73

-Jim
NU0C

On 05 Mar 2014 13:12:23 -0800, w9dz@... wrote:

>I placed an order for PIN diodes on the 2nd and they were delivered today. Installed one at location CR904 and now all is right with the world! How the original went missing will remain a mystery. Thanks to all for your help.
>
>Allen, W9DZ

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19269. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 01:17:58 UTC
From: Jim Shorney
Topic: 18933 Message: 19269

I've heard of the hi-fi guys and marveled at the money they spend on audio chains, but I've never given them a listen. I suppose I should, I could use them for my A-B comparisons of modified vs. unmodified R-7s.

I'm with you, I'm not excited about going to the lengths that they do. Going for natural sound with low distortion in the chain is a good thing, and I may take some of my RX audio improvements to the TX exciter board the next time around. But throwing thousands of dollars at an external audio chain is probably a game for those that are bad at math and have the pocket change to spare.

Even using a preamp with the pro mics kind of goes against my grain, but in this case it is a necessary evil. I chose the Tube MP because they seem to have a decent reputation for sonic quality, they can be found inexpensively on the auction site, and to be honest because it has a tube in it.

What I expect is that the pro mics will have a very clean, accurate, natural sound, but will lack some of the "punch" that the ceramic communications mics have.

73

-Jim
NU0C

On Wed, 5 Mar 2014 16:17:47 -0700 (MST), docbrent wrote:

>I'd be very interested to hear these different mics when you get them airborne.
>
>I'd be interested if a studio mic could improve my audio, but I'm not interested to go the route of th so-called "hi-fi" eSSB-ers with their processing gear that goes between mic and radio. Have you heard these guys? They have a vocabulary all their own, reminiscent of wine experts to describe characteristics of their sound (e.g., "wet").
>
>I'm not convinced all that gear enhances intelligibility or even listenability (especially when signals are on the weak side of 5-9).
>
>Brenton
>VE6 IE
>
>----- Original Message -----From: Jim Shorney <jshorney@...>To: DrakeRadio@yahoogroups.comSent: Wed, 05 Mar 2014 15:12:24 -0700 (MST)Subject: Re: [DrakeRadio] Drake Microphones
>
>
>Indeed, both the impedance and output are on the low side for our radios. I
>

>have acquired an inexpensive ART "Tube MP" pro-audio mic preamp to use with the
>
>various pro mics that I want to give a spin on the air. I have more than just
>
>the RE-20 and RE-320 on hand, and this box supports phantom power for
>
>condensers also. It's XLR input for the pro mics with XLR and unbalanced
>
>output.
>
>I have the cables made up for the audio connections, but I haven't actually put
>
>it on the air yet. I need to rig a PTT switch, and I haven't decided yet how I
>
>want to do that.
>
>The black RE-20 and the RE-320 look really cool in a 309 shock mount....
>
>The RE-320 is essentially an RE-27 in an RE-20 casing with built-in EQ options
>
>set up to facilitate kick drum usage as the main bullet point, but they seem to
>
>have developed a following for vocal work as well.
>
>73
>
>-Jim
>
>NU0C
>
>On Wed, 5 Mar 2014 12:40:19 -0700 (MST), Docbrent wrote:
>
>>I read the impedance of the EV RE-320 is 150 ohms -- isn't that a little low for the TR7? How do you get it to match, and how's it sound, Jim?
>
>>
>
>>Brenton
>
>>VE6IE
>
>>
>
>>----- Original Message -----
>
>>
>
>>From: "Jim Shorney" <jshorney@...>
>
>>To: DrakeRadio@yahoogroups.com

>
>>Sent: Tuesday, March 4, 2014 11:14:53 PM
>
>>Subject: Re: [DrakeRadio] Drake Microphones
>
>>
>
>>
>
>>
>
>>
>
>>There's an amusing thought.
>
>>
>
>>I actually know a guy who does repaints on pro-audio mics. He used to work in
>
>>our Electro-Voice service area. I was thinking of having him do a black RE-20
>
>>for me, but then I stumbled into some RE-320 parts and built my own. He has one
>
>>of my orignal gray +3s that he re-painted in a sort of hammertone gray for me.
>
>>I need to get that from him and re-assemble it. I'd like to have him re-do my
>
>>"Lafayette Range Boost" +3B, but I would need a good way to reproduce the
>
>>markings for the level control.
>
>>
>
>>73
>
>>
>
>>-Jim
>
>>NU0C
>
>>
>
>>On Tue, 4 Mar 2014 12:50:49 -0700 (MST), docbrent wrote:
>
>>
>
>>>I think you should give that a try, painting up a few +3A mics. Come up with some story about how these rare collectibles came about.
>

>>>
>
>>>
>
>>>And if I may offer a suggestion, how about using an EvilBay moniker like, say, "Microphone Mart" where you can flog them for a couple hundred a "pop."
>
>>
>
>>--
>
>>â€œThereâ€™s something out of place â€“ letâ€™s go and poke it with a stick.â€ï¿½ â€“ The Doctor, "Amyâ€™s Choice"
>
>>
>
>>
>
>>
>
>>
>
>--
>
>Ham Radio NU0C
>
>Lincoln, Nebraska, U.S.S.A.
>
>TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>
>"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
>HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
>
>http://incolor.inetnebr.com/jshorney
>
>http://www.nebraskaghosts.org
>
>
>
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.

TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19270. WTB R7 or R7A Svc Manual

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 05:43:02 UTC
From: <w7apm@...>
Topic: 19270 Message: 19270

I have downloaded a couple of PDF's but detail isn't very good.

Thanks!
Marty
KL7AM

19271. Re: [DrakeRadio] WTB R7 or R7A Svc Manual

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 05:58:27 UTC
From: Jim Shorney
Topic: 19270 Message: 19271

The HamManuals CD has an R-7 PDF that is of decent quality. It has a hyperlinked table of contents, which a lot of the electronic manual peddlers don't bother with.

http://www.hamanuals.com/Series1.html

You could probably purchase a decent repro from the usual sources. I imagine that most of the original manuals out there are still with a radio and won't get separated.

73

-Jim
NU0C

On Wed, 5 Mar 2014 21:43:02 -0800, w7apm@... wrote:

>I have downloaded a couple of PDF's but detail isn't very good.
>
>Thanks!
>Marty
>KL7AM

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19272. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 06:33:38 UTC
From: Richard Knoppow
Topic: 18933 Message: 19272

----- Original Message -----
From: "docbrent" <docbrent@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, March 05, 2014 3:17 PM
Subject: Re: [DrakeRadio] Drake Microphones

I'd be very interested to hear these different mics when you
get them airborne.

I'd be interested if a studio mic could improve my audio,
but I'm not interested to go the route of th so-called
"hi-fi" eSSB-ers with their processing gear that goes
between mic and radio. Have you heard these guys? They have
a vocabulary all their own, reminiscent of wine experts to
describe characteristics of their sound (e.g., "wet").

I'm not convinced all that gear enhances intelligibility or
even listenability (especially when signals are on the weak
side of 5-9).

Brenton
VE6 IE

Oh, golly, I made my living at this for a while but
can't hear worth a spit now. The standard impedance for
"professional" microphones is 150 ohms. In the past
impedances from around 30 ohms to about 600 ohms could be
found but most centered around about 50 ohms and about 200
ohms. The impedance is the source impedance of the
microphone. The mics are intended to work into a
substantially higher impedance, ideally infinite but in
practice tube pre-amps with input transformers presented
about 5000 ohms at the input when connected for about 200
ohms. Nearly all pro mics are balanced output. These are
rare and most condenser microphones requiring external power
supplies use "phantom" voltages running between the balanced
audio and shield. For generator microphones running them
unbalanced makes no difference in the sound. In fact,
Western Electric used to build their consoles for unbalanced
50 ohms but that was because it was cheaper than providing
the switching necessary for balanced input.
The reason for the high load impedance is that
microphones are _voltage_ sources, not power sources, so the
best signal to noise is gotten from a high load impedance
which does not lower the output voltage. Also, some types
of microphones, notably ribbon and some types of directional

moving coil mics do not have constant impedance. They have a definite low-frequency resonance with attendant rise in impedance, if run into a matching load the low end will roll off. Condenser and electret microphones have associated electronics which eliminates any effects of load from the pre-amp.
Now, most ham transmitters, especially filter type SSB transmitters, have very narrow audio pass bands, typically from about 300 to about 3000 hz. The roll off beyond this range is quite steep. So, what difference are you going to hear if you use a high quality recording microphone with response from perhaps 30hz to 15Khz? In fact, I have tried this with my T4XB using a high quality input matching transformer. The result is that I get the best reports from an Electro-Voice 665, a middle quality cardioid mic. I've tried a couple of classic microphones, for instance, an RCA 77D and a Western Electric 639A (genuine, not an Altec clone) the EV mic got better results. Modern communications mics are mostly of three types, moving coil, electret, or magnetic of some sort such as variable reluctance. The latter are simple mechanically and cheap to make. They are also very rugged. Most of these microphones have anything but flat response, usually having a low frequency roll-off and a peak at about 3khz. I think the peak can be too much as in the famous D-104 which I have always found unpleasant sounding. If you manage to find a Neumann U-67 (an old favorite) I can think of better uses than on a ham rig.
FWIW, when I could hear and did custom recording I avoided moving coil mics although I did use an EV-666 for kick drum (might use an RE-20 now).
BTW, I am _very_ skeptical of some of the claims by the audio crowd about what they can hear.
Heigh-ho and off to the land of sweet dreams.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19273. R7A AGC Problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 07:11:28 UTC
From: <w7apm@...>
Topic: 19273 Message: 19273

No AGC in slow position or s-meter action, rf gain control does not affect s-meter. Seems to operate the same in AGC off and AGC slow. Have another working R7 and tried swapping IF/AGC boards with no success.
Switches seem to be functioning normally. I do have AGC in medium and fast positions and s-meter action. Capacitors and Resistors on main board that determine slow AGC time constant measure OK for capacity, Could the polarity be backwards causing the problem?.

Any Ideas?

Thanks!
Marty
KL7AM

19274. Re: [DrakeRadio] RE: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 13:47:12 UTC
From: Joe Pyles
Topic: 18930 Message: 19274

From the photos you have posted the noise blanker is not installed.

73, Joe KC9LAD

At 05:41 PM 3/5/2014, you wrote:
>
>
>Hi All,
>
>As promised I've finally got around to putting
>some pictures of the TR-5 in the Photos section.
>As you can see it truly is a 'garage' find -
>actually not a garage (I think) but a very dusty
>spare room. I didn't take a picture of the PS-75.
>
>Overall looks in pretty good condition if
>exceptionally grubby as you can see :) Looks
>like no obvious modifications that I can see.
>Someone has been here before, the case screws
>are wrong (should be machine screws, and its has self tapers).
>
>So did basic checks on the PSU for old / damaged
>electrolytics, there were no issues, brought it
>up on a variac, no issues, and it gives the
>right output. So connected up to the TR-5, power
>on - no smoke but also no audio output, digital
>display worked fine on all band positions, S
>meter moves up when RF gain reduced (as expected).
>
>Basic checks, audio amp OK when tone injected so
>no problem there, started to trace the RF side,
>starting with the oscillators, PTO output seems
>fine (with good stability !!), RIT control works
>OK, XTAL output looks OK and works on all bands. Check BFO output - none
>
>So established that the BFO oscillator isn't
>providing any output, so looks like that is the
>problem that the original owner had but couldn't
>isolate it so one step further than him in 40 mins basic fault finding :)
>
>Voltages on the board board look correct and the
>correct voltages for mode are being applied,
>basic checks on the bias etc look OK on the
>semiconductors at the moment according to the
>manual. Started to chase down the circuit now.

>
>Anyone had any problems with this board before or anyone got any ideas?
>
>Want to get it fixed before cleaning it up :)
>
>Thanks and 73's
>Chris
>M1ABK
>
>
>
>

19275. Re: [DrakeRadio] RE: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 14:02:57 UTC
From: David Stinson
Topic: 18930 Message: 19275

----- Original Message -----
>Subject: Re: [DrakeRadio] RE: TR-5 Restoration
>From the photos you have posted the noise blanker is not
>installed.

> 73, Joe KC9LAD

I have a NOS main tuning knob for you.
Send an address.
Be warned- I am slow as Christmas,
but I will get it done.

73 Dave AB5S

19276. Re: [DrakeRadio] R7A AGC Problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 16:22:43 UTC
From: Joe Pyles
Topic: 19273 Message: 19276

Either C1 or C2 on the main board is shorted or
the wiring from the fast agc switch that goes to
R17 or R18 is shorted to ground. This would kill
the agc voltage and cause the problem that you describe.

73, Joe KC9LAD

At 02:11 AM 3/6/2014, you wrote:
>
>
>No AGC in slow position or s-meter action, rf
>gain control does not affect s-meter. Seems to
>operate the same in AGC off and AGC slow. Have
>another working R7 and tried swapping IF/AGC boards with no success.
>Switches seem to be functioning normally. I do
>have AGC in medium and fast positions and
>s-meter action. Capacitors and Resistors on main
>board that determine slow AGC time constant
>measure OK for capacity, Could the polarity be backwards causing the problem?.
>
>Any Ideas?
>
>Thanks!
>Marty
>KL7AM
>

19277. Re: [DrakeRadio] R7A AGC Problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 17:19:16 UTC
From: <w7apm@...>
Topic: 19273 Message: 19277

Thanks Joe for the thoughts

C1 and C2 both check in spec. I wonder about a possible wiring error to the IF/AGC board from the switches too. My downloaded service manual detail isn't very good and I can't read the connections between the switches and the IF/AGC Board

--- epyles@indy.rr.com wrote:

From: Joe Pyles <epyles@indy.rr.com>
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 06 Mar 2014 11:22:43 -0500

Either C1 or C2 on the main board is shorted or the wiring from the fast agc switch that goes to R17 or R18 is shorted to ground. This would kill the agc voltage and cause the problem that you describe.

73, Joe KC9LAD

At 02:11 AM 3/6/2014, you wrote:

No AGC in slow position or s-meter action, rf gain control does not affect s-meter. Seems to operate the same in AGC off and AGC slow. Have another working R7 and tried swapping IF/AGC boards with no success.
Switches seem to be functioning normally. I do have AGC in medium and fast positions and s-meter action. Capacitors and Resistors on main board that determine slow AGC time constant measure OK for capacity, Could the polarity be backwards causing the problem?.

Any Ideas?

Thanks!
Marty
KL7AM

19278. RE: TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 17:25:26 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 19278

HI Dave,

Wow thanks, I will drop you an email direct to the address on QRZ is that OK ?

Thanks
Chris.
M1ABK

19279. Posted photos of Drake L4 keying interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 17:32:53 UTC
From: <prosolar@...>
Topic: 19279 Message: 19279

Guys and gals,

i posted a couple of photos of the amp keying interface for the group.

It's a no hole installation. Optical coupling from the radio to the amp. Instead of seeing 30+ volts at 50-100 ma current, the radio will only see 12 v at 4 ma.

Mike, wb8vge

19280. Re: [DrakeRadio] Posted photos of Drake L4 keying interface

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 17:37:09 UTC
From: Evan Rolek
Topic: 19279 Message: 19280

Mike,

I'll be peeking at those pics. Thanks for making them available.

73,

Evan, K9SQG

-----Original Message-----
From: prosolar <prosolar@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, Mar 6, 2014 12:33 pm
Subject: [DrakeRadio] Posted photos of Drake L4 keying interface

Guys and gals,

i posted a couple of photos of the amp keying interface for the group.

It's a no hole installation. Optical coupling from the radio to the amp. Instead of seeing 30+ volts at 50-100 ma current, the radio will only see 12 v at 4 ma.

Mike, wb8vge

19281. Re: [DrakeRadio] RE: TR-5 Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 18:09:24 UTC
From: <chrismortlock1@...>
Topic: 18930 Message: 19281

Hi Joe, Thanks, I've the documentation for it, but when I've checked (re-read) it, it appears to be for the R4-C receiver and unless its compatible with the TR-5 (is it?) it wouldn't be installed. My guess is that the Silent Key perhaps had other Drake kit (I did get a power meter from the family selling it as well), and maybe he got rid of it but kept the info - guess I'll never know. They did say they would call me if the found any more of 'this sort of stuff' so you never know !

73's
Chris
M1ABK

19282. RE: TR-5 Restoration Starts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-06 22:34:34 UTC
From: <chrismortlock1@...>
Topic: 19264 Message: 19282

UPDATE.

As per previous post, I decided to remove the BFO Board to aid testing. Applied 10V and 10V Switching to emulate the mode switch. All pin diodes functioned correctly. Checked voltages as per the manual, again all seemed to be correct, so a little puzzling :(

Thought the crystal might not be working - I have xtal problems with Ten Tec quite regularly and so built a small circuit from the GQRP club. Tested it and it started first time and was reliable, so no problem there :)

Rechecked again the bias around the transistors and FET, again seemed OK, the FET might have been slightly high so decided to take the old one out and see if I had a FET suitable in my 'stock',

The only one I had was a J310 which has the Drain and Gate is reversed (which actually fits the pinout on the board better!) - decided to swap it anyway ahead of ordering a the correct equivalent.

And the result was - success :) - I've attached three extra pictures of the board, it on the test bench and a scope and frequency counter.

Put the board back in the radio and sat down to have a very pleasant time listening to 7Mhz and 18Mhz (which was wide open to the states). Still getting used to the 'reverse' tuning, seems to work quite well, I'm impressed with it, and I haven't aligned it or checked it further - just enjoying it at the moment !!

So that seems to have sorted the primary fault, now to check it more fully and onto the transmitter and a complete alignment and then a really good clean.

more updates when I get the chance to give it more time :)

19283. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 03:21:50 UTC
From: Jim Shorney
Topic: 18933 Message: 19283

On Wed, 5 Mar 2014 22:33:38 -0800, Richard Knoppow wrote:

> I am _very_ skeptical of some of the claims by the
>audio crowd about what they can hear.

I tend to agree. I think a lot of it is psychological - you spent $500 on pure gold unobtainium-insulated dilithium-core speaker wire, so of course it sounds better. You wouldn't spend your money foolishly, would you? I know a guy who is generally very good with audio (he manufactured high end speakers and tube amps for a while) but who insists gold-plated "medical grade" 120v wall outlets make a difference in sound. Who knew the guy was bad at math?

OTOH, I do believe that the cumulative effects of replacing components with higer quality or better suited parts can make noticable differences under some circumstances.

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19284. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 05:27:30 UTC
From: Richard Knoppow
Topic: 18933 Message: 19284

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, March 06, 2014 7:21 PM
Subject: Re: [DrakeRadio] Drake Microphones

> On Wed, 5 Mar 2014 22:33:38 -0800, Richard Knoppow wrote:
>
>> I am _very_ skeptical of some of the claims by the
>>audio crowd about what they can hear.
>
>
> I tend to agree. I think a lot of it is psychological -
> you spent $500 on pure
> gold unobtainium-insulated dilithium-core speaker wire, so
> of course it sounds
> better. You wouldn't spend your money foolishly, would
> you? I know a guy who is
> generally very good with audio (he manufactured high end
> speakers and tube amps
> for a while) but who insists gold-plated "medical grade"
> 120v wall outlets make
> a difference in sound. Who knew the guy was bad at math?
>
> OTOH, I do believe that the cumulative effects of
> replacing components with
> higer quality or better suited parts can make noticable
> differences under some
> circumstances.
>
> 73
>
> -Jim
> NU0C
>
This is probably off topic. I think you are right
about psychology. I think whatever the audioperson hears is
attributed to whatever they changed last and they _expect_
to hear something. High Fidelity as a hobby began a very
long time ago even pre-WW-2 although most of those working
with high-quality audio at the time were pros. However,
about the late 1940s a lot of changes happened perhaps
beginning with the Lp record and tape recording along with a
couple of disc cutters of much better quality than most
avaiable previously. So, one began to have a choice of a

lot of equipment meant for consumers more than professional recorders or broadcasters and it became a sort of horse-power race. Eventually, all parts of the system reached a high degree of perfection so one could still choose equipment but the choice began to make little difference. Nonetheless, people wanted to think they could understand some arcane knowledge that was hidden from others and devise some arrangement that would produce the perfect illusion of... what... music? Maybe but I think a lot of audiofolks listen to equipment and not to music. I can't hear either anymore so am hors de combat as far as arguing equipment is concerned. I suspect many modern day audiofolks would be astonished at what was done in about the late 1930s which what they would consider antiques. For instance, I think one of the transcription service records have been made available on CD. I am drawing a blank on the name of this company but it will come back later. Transcription services were available for broadcast stations because many record companies did not license their records for air play. This company used the Western Electric type 1-A cutter. This was the first cutter to employ motional feedback and was flat out to 15khz with very low distortion. I resulted in a vogue of vertical cut records. The company made its recordings in a large studio with excellent acoustics and the quality is astonishing. This is c.1938 or so.
My point was only that its unlikely that a very high quality microphone will make much difference on a communications channel. Certainly there is nothing wrong with experimenting but the caution is not to spend a lot of money for someting that's not going to do much. OTOH if you do high quality recording and already have some decent microphones by all means give them a try.

Enough of this for now and back to Drake radios.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19285. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 05:47:20 UTC
From: K5MYJ
Topic: 18933 Message: 19285

If you put the very best speaker manufactured in a POS cabinet it will sound like a POS.

If your audio has 2% 2nd harmonic distortion you cannot hear the distortion. If your audio has 2% 3rd harmonic distortion you cannot hear it.

I worked on tape drives for Disney in 64 to 65.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Richard Knoppow
To: DrakeRadio@yahoogroups.com
Sent: Thursday, March 06, 2014 9:27 PM
Subject: Re: [DrakeRadio] Drake Microphones

----- Original Message -----
From: "Jim Shorney" <jshorney@inebraska.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, March 06, 2014 7:21 PM
Subject: Re: [DrakeRadio] Drake Microphones

> On Wed, 5 Mar 2014 22:33:38 -0800, Richard Knoppow wrote:
>
>> I am _very_ skeptical of some of the claims by the
>>audio crowd about what they can hear.
>
>
> I tend to agree. I think a lot of it is psychological -
> you spent $500 on pure
> gold unobtainium-insulated dilithium-core speaker wire, so
> of course it sounds
> better. You wouldn't spend your money foolishly, would
> you? I know a guy who is
> generally very good with audio (he manufactured high end
> speakers and tube amps
> for a while) but who insists gold-plated "medical grade"
> 120v wall outlets make
> a difference in sound. Who knew the guy was bad at math?
>
> OTOH, I do believe that the cumulative effects of
> replacing components with
> higer quality or better suited parts can make noticable
> differences under some
> circumstances.

>
> 73
>
> -Jim
> NU0C
>
This is probably off topic. I think you are right
about psychology. I think whatever the audioperson hears is
attributed to whatever they changed last and they _expect_
to hear something. High Fidelity as a hobby began a very
long time ago even pre-WW-2 although most of those working
with high-quality audio at the time were pros. However,
about the late 1940s a lot of changes happened perhaps
beginning with the Lp record and tape recording along with a
couple of disc cutters of much better quality than most
avaiable previously. So, one began to have a choice of a
lot of equipment meant for consumers more than professional
recorders or broadcasters and it became a sort of
horse-power race. Eventually, all parts of the system
reached a high degree of perfection so one could still
choose equipment but the choice began to make little
difference. Nonetheless, people wanted to think they could
understand some arcane knowledge that was hidden from others
and devise some arrangement that would produce the perfect
illusion of... what... music? Maybe but I think a lot of
audiofolks listen to equipment and not to music. I can't
hear either anymore so am hors de combat as far as arguing
equipment is concerned. I suspect many modern day
audiofolks would be astonished at what was done in about the
late 1930s which what they would consider antiques. For
instance, I think one of the transcription service records
have been made available on CD. I am drawing a blank on the
name of this company but it will come back later.
Transcription services were available for broadcast stations
because many record companies did not license their records
for air play. This company used the Western Electric type
1-A cutter. This was the first cutter to employ motional
feedback and was flat out to 15khz with very low distortion.
I resulted in a vogue of vertical cut records. The company
made its recordings in a large studio with excellent
acoustics and the quality is astonishing. This is c.1938 or
so.
My point was only that its unlikely that a very high
quality microphone will make much difference on a
communications channel. Certainly there is nothing wrong
with experimenting but the caution is not to spend a lot of
money for someting that's not going to do much. OTOH if you
do high quality recording and already have some decent
microphones by all means give them a try.

Enough of this for now and back to Drake radios.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19286. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 05:57:36 UTC
From: Jim Shorney
Topic: 18933 Message: 19286

On Thu, 6 Mar 2014 21:27:30 -0800, Richard Knoppow wrote:

>My point was only that its unlikely that a very high
>quality microphone will make much difference on a
>communications channel. Certainly there is nothing wrong
>with experimenting but the caution is not to spend a lot of
>money for someting that's not going to do much.

I'm all about not spending money. All that I have in most of these mics is
time. If I had to buy some of this stuff I probably wouldn't.

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19287. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 06:23:30 UTC
From: K5MYJ
Topic: 18933 Message: 19287

A lot of hams do not know it's not the microphone that is at fault.

The best microphone cannot make up for a CRAPPY VOICE!

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Jim Shorney
To: DrakeRadio@yahoogroups.com
Sent: Thursday, March 06, 2014 9:57 PM
Subject: Re: [DrakeRadio] Drake Microphones

On Thu, 6 Mar 2014 21:27:30 -0800, Richard Knoppow wrote:

>My point was only that its unlikely that a very high
>quality microphone will make much difference on a
>communications channel. Certainly there is nothing wrong
>with experimenting but the caution is not to spend a lot of
>money for someting that's not going to do much.

I'm all about not spending money. All that I have in most of these mics is
time. If I had to buy some of this stuff I probably wouldn't.

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19288. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 06:20:50 UTC
From: geoffrey mendelson
Topic: 18933 Message: 19288

On 3/7/2014 7:47 AM, K5MYJ wrote:
>
> If you put the very best speaker manufactured in a POS cabinet it will
> sound like a POS.
> If your audio has 2% 2nd harmonic distortion you cannot hear the
> distortion. If your audio has 2% 3rd harmonic distortion you cannot
> hear it.
> I worked on tape drives for Disney in 64 to 65.
>

It depends upon the distortion and how used to it you are. Transistor amplifiers got a bad reputation because they were less distorted than vacuum tube amplifiers (the so called harsh or cold sound), or had different distortion (rough sound, hash, etc).

Vacuum tube amplifiers have "warm" or "soft" sound when distorted. People pay good money for these amplifiers a friend of mine spent $1,000 to re-tube his stereo system. They also pay good money for solid state devices that mimic that sound, especially effects units for rock n roll bands.

I spent the 1980's working as a volunteer in a small folk music club and even with my lousy hearing know what live music sounds like. I often have to laugh when people tell me how their system sounds "live", when it does nothing of the sort.

BTW, around 10 years ago, a Taiwanese motherboard manufacturer sold one with a vacuum tube audio preamp on it, to give your computer that "tube sound".

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

19289. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 06:25:45 UTC
From: geoffrey mendelson
Topic: 18933 Message: 19289

On 3/7/2014 8:23 AM, K5MYJ wrote:
>
> A lot of hams do not know it's not the microphone that is at fault.
> The best microphone cannot make up for a CRAPPY VOICE!
>
The microphone needs to be suited to the person's voice too. My wife has a high pitched voice and sounds great on D-104's and Japanese HT's. I have a low pitched, kind of rumbly voice and sound horrible on D-104's and Japanese HT's, but sound great with a 10-DA, and LMR radios (Motorola and Chinese).
>
>
Also most hams do not understand how Japanese mobile rigs are designed to be used (microphone in the lap) and over drive them.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

19290. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 06:27:23 UTC
From: Brenton Crowhurst
Topic: 18933 Message: 19290

With the indulgence of you fellas posting on this thread, I'll be a little less diplomatic than I was in my previous posts. I think I'm preaching to a sympathetic choir. If not, well, as they say, "your mileage may vary."

When I read about these Ham Radio so-called "Hi Fiers", I had to chuckle to myself that they sound to me like they are stuck in a time warp notion of what is "Hi Fi", where more was more. Graphic equalizers were perhaps the garish epitome of the now discredited era. Now a days, in the higher end audio hobby, most people consider less is more. The fewer components interfering in the signal path the better, and for those that must intervene, then better quality is better sound. And irony of ironies, tube amplifiers, like vinyl records, are frequently considered rather more natural sounding.

So when I read about these guys and their mixer board audio components that, for the life of me, resemble a recording studio deployed to shape the signal through equalization and contribute attributes like "moistness" and reverberation to get that "broad cast quality" sound . . . I can only think they are pursuing a goal primarily by adding distortion. And listening to what they accomplish on 14. 178, half of them sound like Silons from Battle Star Galactica. Or Darth Vader from Star Wars. Others sound less distorted and more "broad casty", granted, but that is only when they are 20 over 9. When they are 5-5, their "goofy audio", as I heard one ham call it, their audio is loud enough, but hard to understand.

One of the things that keeps getting mentioned is band width, and the reality that SSB has limited bandwidth. Perhaps "fidelity" isn't to be found in bandwidth any more than in bundles of electronic processing gear, but rather in the simplicity of a microphone can do a better job of tracing the signal, like a good moving coil cartridge track the nuances of the record groove more precisely, quickly and accurately. I don't know if it's the case, but I'm curious.

Just a thought or two to throw in.

73
Brenton, VE6IE

On Mar 6, 2014, at 8:21 PM, Jim Shorney <jshorney@...> wrote:

> On Wed, 5 Mar 2014 22:33:38 -0800, Richard Knoppow wrote:
>
> > I am _very_ skeptical of some of the claims by the
> >audio crowd about what they can hear.
>
> I tend to agree. I think a lot of it is psychological - you spent $500 on pure
> gold unobtainium-insulated dilithium-core speaker wire, so of course it sounds
> better. You wouldn't spend your money foolishly, would you? I know a guy who is
> generally very good with audio (he manufactured high end speakers and tube amps
> for a while) but who insists gold-plated "medical grade" 120v wall outlets make
> a difference in sound. Who knew the guy was bad at math?
>

> OTOH, I do believe that the cumulative effects of replacing components with
> higer quality or better suited parts can make noticable differences under some
> circumstances.
>
> 73
>
> -Jim
> NU0C
>
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

19291. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 06:30:23 UTC
From: Jim Shorney
Topic: 18933 Message: 19291

At least WRT the RX audio mods to my 7-Line, it's not about the THD. It's about the intermodulation distortion. K9JU set me on this path by noticing the IMD in the TR-7 audio chain. He's a CW op and went to some effort to "clean up" his TR-7. From my own experience, I have some spectrograms that show some interesting before/after effects of the mods in my R-7A. It (the R-7A) never did seem as easy to copy signals on as the TR-7, and it was not a matter of sensitivity. After the first round of changes to my TR-7 it did seem more pleasant to listen to, and I favored it over the R-7A even more so. When I finished the R-7A I almost immediately noticed that signals seemed to stand out above the noise better, and it has become the preferred receiver. After two months of almost daily chasing of W1AW portables that observation has not changed. Under some circumstances it is easier to copy signals on the TR-7, but generally the R-7A is "nicer" most of the time. And this is with the TR-7 patched through the R-7A audio PA as Drake intended so they are using the same speaker.

FWIW, I don't exacly own high-end stereo gear here, nor have I abused my ears with 40 years of ear-splitting music or overly loud headphones. My gear is all off-the-shelf consumer grade, but I can tell the differences between various pieces and I do have my preferences. It seems like a lot of the stuff you find in retail stores these days is almost painful to listen to for any length of time. My first stereo when I was a young ham was the guts out of a console record player found curbside, IIRC two single-ended 50C5 and a preamp tube, with the speakers mounted inside cardboard boxes at each end of the shelf I set it up on. Call it an early "bookshelf" system. It couldn't do any serious amount of volume, but it sounded pretty good for what it was.

73

-Jim
NU0C

On Thu, 6 Mar 2014 21:47:20 -0800, K5MYJ wrote:

>
>If you put the very best speaker manufactured in a POS cabinet it will sound like a POS.
>
>If your audio has 2% 2nd harmonic distortion you cannot hear the distortion. If your audio has 2% 3rd harmonic distortion you cannot hear it.
>
>I worked on tape drives for Disney in 64 to 65.
>

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

19292. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 11:08:41 UTC
From: Richard Knoppow
Topic: 18933 Message: 19292

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, March 06, 2014 10:30 PM
Subject: Re: [DrakeRadio] Drake Microphones

> At least WRT the RX audio mods to my 7-Line, it's not
> about the THD. It's about
> the intermodulation distortion. K9JU set me on this path
> by noticing the IMD in
> the TR-7 audio chain. He's a CW op and went to some effort
> to "clean up" his
> TR-7. From my own experience, I have some spectrograms
> that show some
> interesting before/after effects of the mods in my R-7A.
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> did seem as easy to copy signals on as the TR-7, and it
> was not a matter of
> sensitivity. After the first round of changes to my TR-7
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> pleasant to listen to, and I favored it over the R-7A even
> more so. When I
> finished the R-7A I almost immediately noticed that
> signals seemed to stand out
> above the noise better, and it has become the preferred
> receiver. After two
> months of almost daily chasing of W1AW portables that
> observation has not
> changed. Under some circumstances it is easier to copy
> signals on the TR-7, but
> generally the R-7A is "nicer" most of the time. And this
> is with the TR-7
> patched through the R-7A audio PA as Drake intended so
> they are using the same
> speaker.
>
> FWIW, I don't exacly own high-end stereo gear here, nor
> have I abused my ears
> with 40 years of ear-splitting music or overly loud
> headphones. My gear is all
> off-the-shelf consumer grade, but I can tell the
> differences between various
> pieces and I do have my preferences. It seems like a lot
> of the stuff you find

> in retail stores these days is almost painful to listen to
> for any length of
> time. My first stereo when I was a young ham was the guts
> out of a console
> record player found curbside, IIRC two single-ended 50C5
> and a preamp tube,
> with the speakers mounted inside cardboard boxes at each
> end of the shelf I set
> it up on. Call it an early "bookshelf" system. It couldn't
> do any serious
> amount of volume, but it sounded pretty good for what it
> was.
>
> 73
>
> -Jim
> NU0C

IMD can be used to characterize narrow band amplifiers where THD can not. That is the reason it is used for RF linears. If you look at some very old books on audio you will find that very little IMD testing was done and it was not well understood. The general assumption was that if the harmonic distortion was OK IM distortion would be also. This is not the case because the two come from different kinds of non-linearity. IM testing was used mostly for optimizing photographic sound recording for motion pictures. Two method were developed, one by Western Electric and the other by RCA. Both did approximately the same thing but the RCA method is suitable for narrow band testing and the WE method is not. Harmonic distortion, if it is mostly even harmonics, is noticable but not too unpleasant until it reaches very large amounts while relatively small amounts of IM make audio rough sounding. The amounts of both kinds of distortion we are used to seeing in hi-fi specs are much lower than one finds in practical applications. For instance, the old standard for motion picture sound was 5% IMD and systems delivering this were considered to be of high quality. The same for THD, less than about 2% was condsidered very good. Most single-ended tube amps as found in both ham and commercial communications receivers are speced for maximum power at around 10% THD and no IM spec is given. In fact it is quite possible to hear the difference between a single ended amp and a push-pull amp even on fairly restricted audio. Receivers with p-p amps generally have a reputation for having good audio. The same is true for solid state amps where p-p is cheaper to impliment than with tubes because no transformer (always expensive) is needed. Nonetheless the audio specs for much solid state stuff is no better than for old tube gear where

the power is on the order of 2 watts at 10%. I contend that you really _can_ hear this. Probably someone with good hearing can hear the difference between a 2% system and a 0.2% one but it would depend on the program material. Also keep in mind that loudspeakers can be prodigeous generators of IM although this is not usually significant for the narrow frequency range of ham radio speech.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19293. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 12:43:39 UTC
From: David Stinson
Topic: 18933 Message: 19293

----- Original Message -----
From: "Brenton Crowhurst" <docbrent@...>
Subject: Re: [DrakeRadio] Drake Microphones

When I read about these Ham Radio so-called "Hi Fiers", I had to chuckle to myself that they sound to me like they are stuck in a time warp notion of what is "Hi Fi", where more was more. Graphic equalizers were perhaps the garish epitome of the now discredited era. Now a days, in the higher end audio hobby, most people consider less is more....

I don't know much about the "high-end" audio hobby,
other than there are a lot of fools with too much money to waste
(same as in "modern" art, "collectable"wines etc.).
But the idea that "less is more" appeals to my Luddite soul,
Brenton.
Thanks for posting this. :-)

73 Dave AB5S

19294. Re: [DrakeRadio] RE: TR-5 Resoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 15:34:14 UTC
From: David Stinson
Topic: 18930 Message: 19294

Sure thing.

----- Original Message -----
From: <chrismortlock1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, March 06, 2014 11:25 AM
Subject: [DrakeRadio] RE: TR-5 Resoration

> HI Dave,
>
> Wow thanks, I will drop you an email direct to the address on
> QRZ is that OK ?
>
>
> Thanks
> Chris.
> M1ABK
>

19295. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 16:50:59 UTC
From: Garey Barrell
Topic: 18933 Message: 19295

Richard Knoppow wrote:
> ----- Original Message -----
> From: "Jim Shorney" <jshorney@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Thursday, March 06, 2014 7:21 PM
> Subject: Re: [DrakeRadio] Drake Microphones
>
>
>> On Wed, 5 Mar 2014 22:33:38 -0800, Richard Knoppow wrote:
>>
>>> I am _very_ skeptical of some of the claims by the
>>> audio crowd about what they can hear.
>>
>> I tend to agree. I think a lot of it is psychological -
>> you spent $500 on pure
>> gold unobtainium-insulated dilithium-core speaker wire, so
>> of course it sounds
>> better. You wouldn't spend your money foolishly, would
>> you? I know a guy who is
>> generally very good with audio (he manufactured high end
>> speakers and tube amps
>> for a while) but who insists gold-plated "medical grade"
>> 120v wall outlets make
>> a difference in sound. Who knew the guy was bad at math?
>>
>> OTOH, I do believe that the cumulative effects of
>> replacing components with
>> higer quality or better suited parts can make noticable
>> differences under some
>> circumstances.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
> This is probably off topic. I think you are right
> about psychology. I think whatever the audioperson hears is
> attributed to whatever they changed last and they _expect_
> to hear something. High Fidelity as a hobby began a very
> long time ago even pre-WW-2 although most of those working
> with high-quality audio at the time were pros. However,
> about the late 1940s a lot of changes happened perhaps
> beginning with the Lp record and tape recording along with a
> couple of disc cutters of much better quality than most

> avaiable previously. So, one began to have a choice of a
> lot of equipment meant for consumers more than professional
> recorders or broadcasters and it became a sort of
> horse-power race. Eventually, all parts of the system
> reached a high degree of perfection so one could still
> choose equipment but the choice began to make little
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> and devise some arrangement that would produce the perfect
> illusion of... what... music? Maybe but I think a lot of
> audiofolks listen to equipment and not to music. I can't
> hear either anymore so am hors de combat as far as arguing
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> audiofolks would be astonished at what was done in about the
> late 1930s which what they would consider antiques. For
> instance, I think one of the transcription service records
> have been made available on CD. I am drawing a blank on the
> name of this company but it will come back later.
> Transcription services were available for broadcast stations
> because many record companies did not license their records
> for air play. This company used the Western Electric type
> 1-A cutter. This was the first cutter to employ motional
> feedback and was flat out to 15khz with very low distortion.
> I resulted in a vogue of vertical cut records. The company
> made its recordings in a large studio with excellent
> acoustics and the quality is astonishing. This is c.1938 or
> so.
> My point was only that its unlikely that a very high
> quality microphone will make much difference on a
> communications channel. Certainly there is nothing wrong
> with experimenting but the caution is not to spend a lot of
> money for someting that's not going to do much. OTOH if you
> do high quality recording and already have some decent
> microphones by all means give them a try.
>
>
> Enough of this for now and back to Drake radios.
>
The Hi-Fi period was embarked on to allow you to hear real instruments and voices in you
home,
that sounded exactly like they did in person. A symphony orchestra, talented singer, small
club
combo or a big band could all be replicated with amazing accuracy. You could play a record,
or
even 'some' CDs, and really feel like you were 'there'. A-B tests were performed with live
musicians and a recording, switching back and forth for comparison. Sound comparisons are
extremely difficult unless they are immediately switchable, and of course a different room
may
be entirely different.

The equipment got to be better than the equipment used to measure it, so a 'new' paradigm was
needed. The 'experts' started to hear things that only THEY could hear, which makes one wonder
how important they can be if only one person can hear them!?!?

Add that to what is called 'music' today, how would anyone know what it's supposed to sound like!! 95% of it comes from the 'electronics' rather than from real instruments or human voices. If there ARE any real instruments they are so distorted (intentionally!) that they are
unrecognizable anyway..... 2% distortion? more like 200% 'distortion'.

I'm just thankful I still have my Classical, Big Band and Jazz records and some CDs. :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

19296. Re: [DrakeRadio] R7A AGC Problem Repaired?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 17:25:59 UTC
From: <w7apm@...>
Topic: 19296 Message: 19296

I hate when this happens!

It is working fine now. Not sure why but may have been a poor solder joint that disturbing the lead made it work again. I can't seem to reproduce the problem so...

--- w7apm@mtaonline.net wrote:

From: <w7apm@mtaonline.net>
To: <DrakeRadio@yahoogroups.com>
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 6 Mar 2014 09:19:16 -0800

Thanks Joe for the thoughts

C1 and C2 both check in spec. I wonder about a possible wiring error to the IF/AGC board from the switches too. My downloaded service manual detail isn't very good and I can't read the connections between the switches and the IF/AGC Board

--- epyles@indy.rr.com wrote:

From: Joe Pyles <epyles@indy.rr.com>
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 06 Mar 2014 11:22:43 -0500

Either C1 or C2 on the main board is shorted or the wiring from the fast agc switch that goes to R17 or R18 is shorted to ground. This would kill the agc voltage and cause the problem that you describe.

73, Joe KC9LAD

At 02:11 AM 3/6/2014, you wrote:

No AGC in slow position or s-meter action, rf gain control does not affect s-meter. Seems to operate the same in AGC off and AGC slow. Have another working R7 and tried swapping IF/AGC boards with no success.
Switches seem to be functioning normally. I do have AGC in medium and fast positions and s-meter action. Capacitors and Resistors on main board that determine slow AGC time constant measure OK for capacity, Could the polarity be backwards causing the problem?.

Any Ideas?

Thanks!
Marty
KL7AM

19297. RE: [DrakeRadio] R7A AGC Problem Repaired?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 17:50:38 UTC
From: Keith R. Erickson
Topic: 19296 Message: 19297

I had a problem with the AM detector, on the 2nd IF board. A lead was a trifle too long, shorting out an adjacent component. It was a heat related thing, On extender board worked fine. Back in unit work for awhile.

Literally took "years" to find.

K0GNW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w7apm@...
Sent: Friday, March 07, 2014 11:26 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R7A AGC Problem Repaired?

I hate when this happens!

It is working fine now. Not sure why but may have been a poor solder joint that disturbing the lead made it work again. I can't seem to reproduce the problem so...

--- w7apm@... wrote:

From: <w7apm@...>
To: <DrakeRadio@yahoogroups.com>
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 6 Mar 2014 09:19:16 -0800

Thanks Joe for the thoughts

C1 and C2 both check in spec. I wonder about a possible wiring error to the IF/AGC board from the switches too. My downloaded service manual detail isn't very good and I can't read the connections between the switches and the IF/AGC Board

--- epyles@... wrote:

From: Joe Pyles <epyles@...>
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 06 Mar 2014 11:22:43 -0500

Either C1 or C2 on the main board is shorted or the wiring from the fast agc switch that goes to R17 or R18 is shorted to ground. This would kill the agc voltage and cause the problem that you describe.

73, Joe KC9LAD

At 02:11 AM 3/6/2014, you wrote:

No AGC in slow position or s-meter action, rf gain control does not affect s-meter. Seems to operate the same in AGC off and AGC slow. Have another working R7 and tried swapping IF/AGC boards with no success.
Switches seem to be functioning normally. I do have AGC in medium and fast positions and s-meter action. Capacitors and Resistors on main board that determine slow AGC time constant measure OK for capacity, Could the polarity be backwards causing the problem?.

Any Ideas?

Thanks!
Marty
KL7AM

19298. RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 18:05:54 UTC
From: <mikek4qu@...>
Topic: 18622 Message: 19298

Kevin, Still available? Interested.
73, Mike K4QU

19299. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 18:30:17 UTC
From: Jim Lowman
Topic: 18933 Message: 19299

Back in the mid-to-late 60s, I had a few friends who were in the radio broadcasting business.
I knew back then that I didn't have a good "radio voice," so I leaned to the engineering side.

If you listen to radio and TV ads today, it's as if this was no longer a consideration.
Most women sound too nasal and too "Valley."

One of the best voices today, which I feel exemplifies the old-school quality of a "radio voice,"
is John Corbett. He does a lot of voice-overs for places like Applebees.
No regional dialect. You may remember him as DJ Chris Stevens on the "Northern Exposure" TV series on CBS in the early 90s.

73 de Jim - AD6CW

On 3/6/2014 10:23 PM, K5MYJ wrote:
>
>
> A lot of hams do not know it's not the microphone that is at fault.
> The best microphone cannot make up for a CRAPPY VOICE!
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
>

19300. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 18:43:08 UTC
From: Jim Lowman
Topic: 18933 Message: 19300

When I was stationed near Tokyo with the Air Force in the early 70s, all
of us young guys invested a lot of money in cameras and stereo equipment.

There was this store just off base that had a listening room with good
acoustics. We could go in and do comparisons between amplifiers and
speakers.
Granted, most of us don't have acoustically-perfect environments in our
homes, but it was a chance to buy whatever combination sounded the best.

They knew that guys would come over, listen for a while and decide what
to buy, then go to the Base Exchange to buy it.
So they would match the prices, and would even deliver to one's on-base
housing or barracks.

I bought a pair of Acoustic Research AR-3A speakers. Back then, they
were referred to as the "studio standard."
Rarely would you be in a broadcast or recording studio and not see a
pair of them.
The XYL bought a nice pair of Bose bookshelf speakers for me for
Christmas, so I'm going to sell the AR-3As.
It's amazing, the price that these command used today.

73 de Jim - AD6CW

On 3/6/2014 10:30 PM, Jim Shorney wrote:
> FWIW, I don't exacly own high-end stereo gear here, nor have I abused my ears
> with 40 years of ear-splitting music or overly loud headphones. My gear is all
> off-the-shelf consumer grade, but I can tell the differences between various
> pieces and I do have my preferences. It seems like a lot of the stuff you find
> in retail stores these days is almost painful to listen to for any length of
> time. My first stereo when I was a young ham was the guts out of a console
> record player found curbside, IIRC two single-ended 50C5 and a preamp tube,
> with the speakers mounted inside cardboard boxes at each end of the shelf I set
> it up on. Call it an early "bookshelf" system. It couldn't do any serious
> amount of volume, but it sounded pretty good for what it was.
>
> 73
>
> -Jim
> NU0C
>

19301. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 19:01:49 UTC
From: K5MYJ
Topic: 18933 Message: 19301

The CIA has a room at Langley that has NO acoustics!

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Jim Lowman
To: DrakeRadio@yahoogroups.com
Sent: Friday, March 07, 2014 10:43 AM
Subject: Re: [DrakeRadio] Drake Microphones

When I was stationed near Tokyo with the Air Force in the early 70s, all
of us young guys invested a lot of money in cameras and stereo equipment.

There was this store just off base that had a listening room with good
acoustics. We could go in and do comparisons between amplifiers and
speakers.
Granted, most of us don't have acoustically-perfect environments in our
homes, but it was a chance to buy whatever combination sounded the best.

They knew that guys would come over, listen for a while and decide what
to buy, then go to the Base Exchange to buy it.
So they would match the prices, and would even deliver to one's on-base
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I bought a pair of Acoustic Research AR-3A speakers. Back then, they
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pair of them.
The XYL bought a nice pair of Bose bookshelf speakers for me for
Christmas, so I'm going to sell the AR-3As.
It's amazing, the price that these command used today.

73 de Jim - AD6CW

On 3/6/2014 10:30 PM, Jim Shorney wrote:
> FWIW, I don't exacly own high-end stereo gear here, nor have I abused my ears
> with 40 years of ear-splitting music or overly loud headphones. My gear is all
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> pieces and I do have my preferences. It seems like a lot of the stuff you find
> in retail stores these days is almost painful to listen to for any length of
> time. My first stereo when I was a young ham was the guts out of a console
> record player found curbside, IIRC two single-ended 50C5 and a preamp tube,
> with the speakers mounted inside cardboard boxes at each end of the shelf I set
> it up on. Call it an early "bookshelf" system. It couldn't do any serious
> amount of volume, but it sounded pretty good for what it was.

>
> 73
>
> -Jim
> NU0C
>

19302. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-07 19:13:37 UTC
From: Steve Toth
Topic: 18933 Message: 19302

AR-3A's were AR's top of the line in 1968. The Henry Kloss cabinet design and crossover design would still be valid. It would be interesting to hear them with current state-of-the-art speaker components installed - you might reconsider.....

I just updated a pair of blown out Speakerlab 0.1 bookshelf speakers with new current technology woofers. They sound better than the originals - crisp punchy lows and better power handling capability.

But, like with the microphones, maybe that is what my ears are expecting to hear because I updated the speakers ; -)

-- Steve

"Technically........the glass is ALWAYS full."

On Friday, March 7, 2014 10:54 AM, K5MYJ <macklinbob@...> wrote:

The CIA has a room at Langley that has NO acoustics!

Bob Macklin
K5MYJ
Seattle, Wa.
"Real
Radios Glow In The Dark"
----- Original Message -----
>From: Jim Lowman
>To: DrakeRadio@yahoogroups.com
>Sent: Friday, March 07, 2014 10:43 AM
>Subject: Re: [DrakeRadio] Drake Microphones
>
>
>When I was stationed near Tokyo with the Air Force in the early 70s, all
>of us young guys invested a lot of money in cameras and stereo
equipment.
>
>There was this store just off base that had a listening room
with good
>acoustics. We could go in and do comparisons between amplifiers
and
>speakers.
>Granted, most of us don't have acoustically-perfect
environments in our
>homes, but it was a chance to buy whatever combination
sounded the best.
>
>They knew that guys would come over, listen for a
while and decide what

>to buy, then go to the Base Exchange to buy
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>So they would match the prices, and would even deliver to one's on-base
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>
>I bought a pair of Acoustic Research AR-3A
speakers. Back then, they
>were referred to as the "studio
standard."
>Rarely would you be in a broadcast or recording studio and not
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>pair of them.
>The XYL bought a nice pair of Bose bookshelf
speakers for me for
>Christmas, so I'm going to sell the AR-3As.
>It's
amazing, the price that these command used today.
>
>73 de Jim -
AD6CW
>
>On 3/6/2014 10:30 PM, Jim Shorney wrote:
>> FWIW, I don't
exacly own high-end stereo gear here, nor have I abused my ears
>> with
40 years of ear-splitting music or overly loud headphones. My gear is
all
>> off-the-shelf consumer grade, but I can tell the differences
between various
>> pieces and I do have my preferences. It seems like a
lot of the stuff you find
>> in retail stores these days is almost
painful to listen to for any length of
>> time. My first stereo when I
was a young ham was the guts out of a console
>> record player found
curbside, IIRC two single-ended 50C5 and a preamp tube,
>> with the
speakers mounted inside cardboard boxes at each end of the shelf I set
>>
it up on. Call it an early "bookshelf" system. It couldn't do any
serious
>> amount of volume, but it sounded pretty good for what it
was.
>>
>> 73
>>
>> -Jim
>>
NU0C

>>
>
>
>
>
>

19303. Wanted: TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 01:46:14 UTC
From: <w8cq@...>
Topic: 19303 Message: 19303

Hello All,
I am looking for a TR-4 for a project. It does not have to be pretty or even work, just all of the parts there.

What have you?

Jeff W8CQ

19304. R4A board 1 and board 2 problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 02:51:44 UTC
From: <rochep@...>
Topic: 19304 Message: 19304

I bought a re-cap kit from 2Bradioparts for my R4A. I am trying to figure out what cap goes where, and I am stumped with C173 and C176. I have posted pictures in the PHOTOS section here so people can look. Photo#1 is "board 1", but this looks nothing like the late R4A board 1 I see on Garey's CD.
Photo #2 is the cap near V7; I THINK it is 10 uF electrolytic C176, but + to pin 1 (OK) and - is grounded. I don't think it should be grounded.
Photo #3. I can not find the electrolytic on "board 1", is this weird blue-bottomed thing the 10 uF electrolytic. C173 should go from junction of R137 (big thing) and R138 to ground.
Photo #4. There is ANOTHER small board just between "board 1" and "board 2". It is not on the Service CD. I will trace what goes where.

How common is it for Drake to change the boards a bit from radio to radio. The S/N of this radio is 5500.

The radio works fine right now. I COULD just replace the caps that I am sure of (and eventually the elec. can), but I wonder what is going on here.

Paul K3STX

19305. Re: [DrakeRadio] R4A board 1 and board 2 problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 04:08:05 UTC
From: Garey Barrell
Topic: 19304 Message: 19305

Paul -

That must be some sort of 'interim' version! The 'last' revision was at s/n 5400, and the schematic wasn't totally correct. (see the '-k4oah' version on the CD). The model for the 'late' version was a s/n 6600.

If you look at Board 1 on the CD, you'll see the parts from your 'extra' board on the left end.
The 680 resistor is on your board along with Q7 and 8. I'm too tired to figure it all out tonight, but I believe if you look at the s/n 4054 schematic in the VERSION directory of the CD
it might (?) relate more to what you are seeing.

It's interesting in that the boards you have bear no resemblance to the 'early' boards either
and must have been a 'first cut'. The thing is, there aren't many changes in that area from early to late! And yes, Drake wasn't always good about keeping changes 'orderly'.. :-) Looks
like I may need to add an 'interim' version too!!!

Yes, that is probably a Tantalum 10 uF and would be C173. These very seldom fail, and I leave
them alone.

C176 (-) should go to the ungrounded lead from the output transformer to the PHONES jack. It
will work tied to ground, but the original connection applies a little negative feedback to linearize the AF OUTPUT stage.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I bought a re-cap kit from 2Bradioparts for my R4A. I am trying to figure out what cap goes
> where, and I am stumped with C173 and C176. I have posted pictures in the PHOTOS section here
> so people can look. Photo#1 is "board 1", but this looks nothing like the late R4A board 1 I
> see on Garey's CD.
> Photo #2 is the cap near V7; I THINK it is 10 uF electrolytic C176, but + to pin 1 (OK)

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> is grounded. I don't think it should be grounded.
> Photo #3. I can not find the electrolytic on "board 1", is this weird blue-bottomed thing
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> 10 uF electrolytic. C173 should go from junction of R137 (big thing) and R138 to ground.
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> Service CD. I will trace what goes where.
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> How common is it for Drake to change the boards a bit from radio to radio. The S/N of
this
> radio is 5500.
>
> The radio works fine right now. I COULD just replace the caps that I am sure of (and
> eventually the elec. can), but I wonder what is going on here.
>
> Paul K3STX
>
>

19306. Re: [DrakeRadio] R7A AGC Problem Back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 04:49:06 UTC
From: <w7apm@...>
Topic: 19306 Message: 19306

Let it play for a couple hours and all of a sudden the problem returned. Power Supply seems to be awful warm...

--- w7apm@mtaonline.net wrote:

From: <w7apm@mtaonline.net>
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem Repaired?
Date: Fri, 7 Mar 2014 09:25:59 -0800

I hate when this happens!

It is working fine now. Not sure why but may have been a poor solder joint that disturbing the lead made it work again. I can't seem to reproduce the problem so...

--- w7apm@mtaonline.net wrote:

From: <w7apm@mtaonline.net>
To: <DrakeRadio@yahoogroups.com>
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 6 Mar 2014 09:19:16 -0800

Thanks Joe for the thoughts

C1 and C2 both check in spec. I wonder about a possible wiring error to the IF/AGC board from the switches too. My downloaded service manual detail isn't very good and I can't read the connections between the switches and the IF/AGC Board

--- epyles@indy.rr.com wrote:

From: Joe Pyles <epyles@indy.rr.com>
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R7A AGC Problem
Date: Thu, 06 Mar 2014 11:22:43 -0500

Either C1 or C2 on the main board is shorted or the wiring from the fast agc switch that goes to R17 or R18 is shorted to ground. This would kill the agc voltage and cause the problem that you describe.

73, Joe KC9LAD

At 02:11 AM 3/6/2014, you wrote:

No AGC in slow position or s-meter action, rf gain control does not affect s-meter. Seems to operate the same in AGC off and AGC slow. Have another working R7 and tried swapping IF/AGC boards with no success.
Switches seem to be functioning normally. I do have AGC in medium and fast positions and

s-meter action. Capacitors and Resistors on main board that determine slow AGC time constant measure OK for capacity, Could the polarity be backwards causing the problem?.

Any Ideas?

Thanks!
Marty
KL7AM

19307. RE: R4A board 1 and board 2 problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 04:53:25 UTC
From: <rochep@...>
Topic: 19304 Message: 19307

Thanks so much for your help (and your fantastic CD). I was wrong, my S/N is 5024. I just did resistance checks with my DMM, I know it is not a VTVM but almost every reading was within 10%. A couple were off, a bit low (but not much).

C176 is a new one (someone was in there before me) and I'll leave C173 alone for now. I'll replace the others (assuming they are easy to get at) and then tackle the filter cap assembly. I'll have to post a proper pic of the radio, she's a beaut.

paul

19308. RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 04:53:51 UTC
From: <w7boz@...>
Topic: 18622 Message: 19308

Last chance to bid on my Drake station. Ends Saturday morning. Here is a link to Ebay.

http://www.ebay.com/itm/Drake-TR-4C-HF-Station-MS-4-AC-4-MN-4-Manuals-D104-Mic-/251463852591?pt=US_Ham_Radio_Transceivers&hash=item3a8c69e22f http://www.ebay.com/itm/Drake-TR-4C-HF-Station-MS-4-AC-4-MN-4-Manuals-D104-Mic-/251463852591?pt=US_Ham_Radio_Transceivers&hash=item3a8c69e22f

Thanks guys,
Kevin
W7BOZ

19309. Re: [DrakeRadio] R7A AGC Problem Back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 04:58:44 UTC
From: Jim Shorney
Topic: 19306 Message: 19309

Check the Molex pins for cracked solder on the botton side of the parent board.
Also check the top side, I had one that actually had a huge blob of solder on
it that deformed the female contact. Also check soldering on the IF/Audio board
under magnification and good lighting. It might be a good idea to check
clearance between components and the connector bodies on the IF/Audio board.
I've had it happen that a component is bent the wrong way and will short to the
male pin portruding from the rear of the female socket.

73

-Jim
NU0C

On Fri, 7 Mar 2014 20:49:06 -0800, w7apm@... wrote:

>Let it play for a couple hours and all of a sudden the problem returned. Power Supply
seems to be awful warm...

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19310. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 05:11:15 UTC
From: Richard Knoppow
Topic: 18933 Message: 19310

----- Original Message -----
From: "Steve Toth" <stoth47@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, March 07, 2014 11:13 AM
Subject: Re: [DrakeRadio] Drake Microphones

AR-3A's were AR's top of the line in 1968. The Henry Kloss cabinet design and crossover design would still be valid. It would be interesting to hear them with current state-of-the-art speaker components installed - you might reconsider.....

I just updated a pair of blown out Speakerlab 0.1 bookshelf speakers with new current technology woofers. They sound better than the originals - crisp punchy lows and better power handling capability.

But, like with the microphones, maybe that is what my ears are expecting to hear because I updated the speakers ; -)

-- Steve

At the time I was an AR fan, I thought they sounded very smooth and good. The problem was that AR built a gentle roll off in. To be reasonably flat the level adjustments for mid-range and tweeter had to be full up. If you put them at the levels marked by AR the speakers sounded muffled.
I don't know about newer drivers but there were later speakers systems that were better such as the English KEF and some others who's names are escaping me. One of the great improvements was getting away from felted paper cones. The later plastic ones had far less parasitic output and smoother response. A lot of these differences were quite easy to measure if you had a lab grade microphone and associated equipment. I used 1/2 or 1/4 inch B&K mics and got interesting results. Quite often I was able to predict what a curve would look like from the sound of the speaker. There were some highly reputed speakers I though sounded awful and measured that way too. For instance the much vaunted Tannoy Monitor Gold. these had very ragged high end response as one might have expected from the design of the compression driver. I once tried using a pair for monitoring- ugh.

--
Richard Knoppow

Los Angeles
WB6KBL
dickburk@...

19311. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 05:15:54 UTC
From: Jim Shorney
Topic: 18933 Message: 19311

Wow, this has turned into quite an interesting thread.

We have now a generation that is conditioned to accept crappy audio and horrible music. I'm sure Garey will remember the days when hams used to spend hours tweaking their stations to produce the best sounding signal they could. Now we have crappy cell phone audio, quirky restricted D-Star, and cheap CB-grade hand mics. The music business is over-compressed and formulaic, intentionally distorted music is upiquitous as the MP3 format, stars are born not based on their talent but rather by how big of a freak they can be, and auto-tune removes the heart and soul from vocals. Every other song on the radio sounds like it uses the same beat track, the same front guy talking smack, and the same reverbed and layered girl singing.

How far we have fallen.

</rant>

73

-Jim (my uncle was a noted classical pianist)
NU0C

On Fri, 07 Mar 2014 11:50:59 -0500, Garey Barrell wrote:

>Add that to what is called 'music' today, how would anyone know what it's supposed to sound
>like!! 95% of it comes from the 'electronics' rather than from real instruments or human
>voices. If there ARE any real instruments they are so distorted (intentionally!) that they are
>unrecognizable anyway..... 2% distortion? more like 200% 'distortion'.

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19312. Re: [DrakeRadio] R7A AGC Problem Back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 05:23:22 UTC
From: <w7apm@...>
Topic: 19306 Message: 19312

I do have another R7 I can use to swap boards with. I did try swapping the IF/Audio board with no luck. I do appreciate the feedback.

--- jshorney@inebraska.com wrote:

From: "Jim Shorney" <jshorney@inebraska.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem Back
Date: Fri, 07 Mar 2014 22:58:44 -0600

Check the Molex pins for cracked solder on the botton side of the parent board. Also check the top side, I had one that actually had a huge blob of solder on it that deformed the female contact. Also check soldering on the IF/Audio board under magnification and good lighting. It might be a good idea to check clearance between components and the connector bodies on the IF/Audio board. I've had it happen that a component is bent the wrong way and will short to the male pin portruding from the rear of the female socket.

73

-Jim
NU0C

On Fri, 7 Mar 2014 20:49:06 -0800, w7apm@mtaonline.net wrote:

>Let it play for a couple hours and all of a sudden the problem returned. Power Supply seems to be awful warm...

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19313. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 05:37:38 UTC
From: Jim Shorney
Topic: 18933 Message: 19313

You might say that I "checked out" of the hi-fi SSB idea before I checked in. It seems like a phool's game IMO. Not unlike my evolved attitude towards my home entertainment audio system, where I realized early on that it was pointless to spend thousands of dollars on systems with attributes that a dog would be hard pressed to hear. No matter how much you spend there will always be something else on the horizon to suck money from your wallet. As long as I have something that sounds decent and doesn't hurt my ears, I'm happy.

My goal with playing with different microphones is not to produce a signal that sounds better than anyone else. As Bob alluded to and I have talked about in the past, different mics have characteristics that are better suited to various different operating styles and voice characteristics. Good "communications" mics are based on someone's notion, based on laboratory science or personal opinoin, of what communications audio should be. Bad communications mics are a cheap cartridge slapped into an even cheaper housing. My interest in the pro mics is to try something out that has a reasobably flat response and will reproduce voice audio accurately to see how it makes me sound on my radio. That's about it.

73

-Jim
NU0C

On Fri, 7 Mar 2014 06:43:39 -0600, David Stinson wrote:

>----- Original Message -----
>From: "Brenton Crowhurst" <docbrent@...>
>Subject: Re: [DrakeRadio] Drake Microphones
>
>
>When I read about these Ham Radio so-called "Hi Fiers", I had to
>chuckle to myself that they sound to me like they are stuck in a
>time warp notion of what is "Hi Fi", where more was more.
>Graphic equalizers were perhaps the garish epitome of the now
>discredited era. Now a days, in the higher end audio hobby, most
>people consider less is more....
>--
>
>I don't know much about the "high-end" audio hobby,
>other than there are a lot of fools with too much money to waste
>(same as in "modern" art, "collectable"wines etc.).
>But the idea that "less is more" appeals to my Luddite soul,
>Brenton.
>Thanks for posting this. :-)
>

>73 Dave AB5S
>
>
>
>------------------------------------
>
>Yahoo Groups Links
>
>
>

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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19314. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 05:56:00 UTC
From: K5MYJ
Topic: 18933 Message: 19314

There is no perfect mike!

Each type is different. What is the element?

At least dynamic mikes don't die with age. Old crystal mikes are the worst.

In the early days the broadcast industry used condenser mikes.

No mike is flat.

I doubt many hams have what it takes to really test a mike.

The broadcast industry uses equalizers for a reason.

But if you are operating SSB just find a mike that works and use it. You can't fix SSB audio.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: Jim Shorney
To: DrakeRadio@yahoogroups.com
Sent: Friday, March 07, 2014 9:37 PM
Subject: Re: [DrakeRadio] Drake Microphones

You might say that I "checked out" of the hi-fi SSB idea before I checked in. It seems like a phool's game IMO. Not unlike my evolved attitude towards my home entertainment audio system, where I realized early on that it was pointless to spend thousands of dollars on systems with attributes that a dog would be hard pressed to hear. No matter how much you spend there will always be something else on the horizon to suck money from your wallet. As long as I have something that sounds decent and doesn't hurt my ears, I'm happy.

My goal with playing with different microphones is not to produce a signal that sounds better than anyone else. As Bob alluded to and I have talked about in the past, different mics have characteristics that are better suited to various different operating styles and voice characteristics. Good "communications" mics are based on someone's notion, based on laboratory science or personal opinoin, of what communications audio should be. Bad communications mics are a cheap cartridge slapped into an even cheaper housing. My interest in the pro mics is to try something out that has a reasobably flat response and will reproduce voice audio accurately to see how it makes me sound on my radio. That's about it.

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-Jim
NU0C

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>Subject: Re: [DrakeRadio] Drake Microphones
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>73 Dave AB5S
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>Yahoo Groups Links
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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
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HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19315. C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 06:01:56 UTC
From: <rochep@...>
Topic: 19315 Message: 19315

I have been reading that C90A on the R4 and R4A "is not used at all", but my original can there are wires connected to EACH of the four termoinals. Is this not C90A, B, C, D? What am I missing here. My plan was to put the four-position Hayseed cap in its place and connect ALL the wires as they are in this original R4A.

paul

19316. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 06:47:37 UTC
From: Jim Shorney
Topic: 18933 Message: 19316

On Fri, 7 Mar 2014 21:56:00 -0800, K5MYJ wrote:

>No mike is flat.

I said "reasonably flat". The RE-20 and my other pro mics qualify. I work in the facility where some of these are still manufactured, so I know this first hand. The RE-20 is very nearly ruler flat over the "communications" range, and +/- 3dB from 80 Hz to well above 10 KHz with the EQ selector set to flat. I can look up the specs on my other RE- and PL-line mics if you like.

>But if you are operating SSB just find a mike that works and use it. You can't fix SSB audio.

I disagree. SSB audio can sound quite good if you have decent equipment on both ends and tune carefully. I have a non-Drake radio that a previous owner of this model has stated on numerous occasions that they do not make a good contest radio because "everyone will be stopping you to ask what kind of rig you are on because the audio sounds so good". I tend to believe him since he is a veteran contester with an original K0 call. A careless mic choice is not in anyone's best interest. It does make a difference.

73

-Jim
NU0C

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19317. Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 07:19:02 UTC
From: John Sehring
Topic: 18933 Message: 19317

Hi All,

You can transmit a broad bandwidth SSB signal but it wastes spectrum and requires an equally broad receiver to make the most of it.

Ye olde phasing method of SSB generation (and demodulation, too) has the potential to generate such a signal with at least fair fidelity. In principle, rather wide bandwidths are possible, esp. using digital signal processing techniques.

Filter-type SSB generation tends to beat the tar out of audio signals (due to poor group delay characteristics of steep filters).

Well one strong point of single sideband for communication is to reduce the bandwidth of a signal to a minimum. Less interference was fortuitous fallout.

Collins found that the band span could be 300 to 2700 Hz, or 2.4 kHz bandwidth. We all know (right?) that the human male voice has most of its energy at the low end of that spectrum but has most of its intelligence(?) at the upper end. So spectral processing is quite useful.

It's important that the transmit bandwidth and receive bandwidth be equal to each other to insure that no energy was wasted (on tx) outside of that bandwidth. Ditto on rx, no sense in listening to a part of the spectrum where no speech energy was transmitted--maybe only noise or QRM there.

When I listen to the Darth Vader crowd, I often have to invoke some bandpass tuning a la R-4A to listen to a slice of an SSB signal that contains a surplus of LF audio energy. Sometimes, such a signal makes the S-meter lively but the *recovered* audio is poor due to filter bandwidth and spectral mismatch.

So, match bandwidths on both tx and rx AND make sure that bandwidth is put in the right place.

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

19318. Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 08:47:19 UTC
From: Byron Tatum
Topic: 18933 Message: 19318

Regarding the Drake 9 Mhz filter bandwidth in TR-4:

I have experimented with some wider filters (3.1 KHz B/W) in my TR-4 and TR-4C. I believe I would prefer a 2.8 KHz B/W for my own tastes but 9 Mhz LSB/USB filter pairs are hard to come by, especially at a reasonable price. There are some KVG filter pairs available from a reputable surplus source (located in Israel) on the auction site. The filters are contained on a PC board removed from a piece of surplus radio gear. The LSB/USB pair are KVG S43 and S44. These are high quality 8 pole filters that are fully specified (1000 ohms imp, same as Drake).

KVG makes some really nice crystal filters. I have used the XF-9 series in a lot of homebrew projects.

I managed to fit the pair on the existing filter bracket in my TR-4, after re-drilling it. It was a tight fit to the old bracket, so when I did the TR-4C I simply made a new bracket using some pieces of heavy gauge tin plate (double sided board would be OK).

The filters are not expensive and the shipping is free. The boards can be had for between 40.00 and 50.00 shipped. Plus, there is a third filter on the board, a KVG S42. This is a 7.2 KHz B/W AM filter. What more can you ask for? I have no affiliation with the seller except to pass along this bit of information to, what I believe, is a good deal.

As to the outcome of my experiment - I received very favorable reports from the local audio folks. I need to do more work on the 12AX7A mic amp and get a little better microphone. On receive the guys sound really good. It appears the single carrier osc at 9 Mhz is OK with this filter pair, however it seems a little touchier getting it set for near-equal pich on each filter. I would recommend this filter change out only for someone wanting a radio to ragchew with the audio folks, with the wider filters there is a little more crud to deal with. But, I will say the KVG filters have a really nice shape factor and do OK at the wider B/W.

Thanks, Byron WA5THJ

19319. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 12:04:13 UTC
From: <radiomanl@...>
Topic: 19315 Message: 19319

what is the value of C90A ? I have seen this done many times and figured that they used what was available .
if they needed a 3 section electrolytic can and what was available was a 4 section they would buy it and leave
the unneeded terminal open rather than going to the expense of having a 3 section custom built .
forty years in the TV/Radio service industry I have seen a lot of strange circuits and practices .

andrew
kd5pnt

19320. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 12:09:18 UTC
From: <radiomanl@...>
Topic: 19315 Message: 19320

I hit send before I finished . can you ohm out the C90A wire and see where it goes . since it's hooked up just wire it like the original . I did not find a C90A on either schematic .

andrew
kd5pnt

19321. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 12:41:27 UTC
From: <w5rkl@...>
Topic: 19315 Message: 19321

I had the same problem, finding C90A in my R4/R4A schematic, never found it. However I did find it on my R4B schematic, it's off V7's screen at the junction of R136 and R137.

I have a later 6K serial number R4A and C90A (20ufd 200VDC) has 2 White/Violet wires connected to it. One White/Violet wire connects to the small PC board (AF AMP/PTO MATCH) located directly behind the volume control. I can't say if this is how your R4/R4A wiring is but this is how the wiring in my R4A is.

C90A shows up on the R4B schematic at the junction of R136 (1K 1/2 watt) and R137 (10K 2 watt) and pin 6 (screen) of V7.

73
Mike W5RKL

19322. DRAKE SW-2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 14:26:39 UTC
From: <wa0urj@...>
Topic: 19322 Message: 19322

Curious if anyone has a Drake SW-2 that they might consider selling ?
David-WA0URJ

19323. Re: [DrakeRadio] RE: R4A board 1 and board 2 problems

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 14:33:45 UTC
From: Garey Barrell
Topic: 19304 Message: 19323

Paul -

OK. Sounds like you're on your way! Yes, you should use the schematic in the VERSIONS directory, the '4054'. There aren't many changes, but if something doesn't look right, check
the earlier schematic. I don't think there are very many changes, that model was pretty well
settled by then. Usually changes showed up in the AVC area.

I still don't know what to say about those boards. I've never seen one like that. They may have been an 'update' from the original 'early' boards that were then combined for economy. If
you compare components, I believe you'll find that the schematic matches (mostly! :-)) 4054.

Resistance readings are ok, but I usually just refer to the voltage table instead.

Let us know how you get along, and do post a photo. Always nice to see a 'pretty' one!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Thanks so much for your help (and your fantastic CD). I was wrong, my S/N is 5024. I just did
> resistance checks with my DMM, I know it is not a VTVM but almost every reading was within
> 10%. A couple were off, a bit low (but not much).
>
> C176 is a new one (someone was in there before me) and I'll leave C173 alone for now. I'll
> replace the others (assuming they are easy to get at) and then tackle the filter cap assembly.
> I'll have to post a proper pic of the radio, she's a beaut.
>
> paul

19324. Re: [DrakeRadio] RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 15:09:31 UTC
From: Garey Barrell
Topic: 19315 Message: 19324

I think C90A was originally intended to be the Cathode bypass on V7, from the beginning, i.e.,
the R-4. It fits with the original component numbering scheme, and would be logical. But I believe wiser heads prevailed, (or bean counters,) and determined that it made more sense to go
with a three section Twist-Lok and just put a small cap right at the tube socket. Hum reduction? Coupling between power supply filters and audio bypass? It's now identified as C131, near the end of the capacitor id's, indicating an 'afterthought' or field change.

C90A did reappear in the 'late' R-4A as C172, additional decoupling to the V7 Screen and for the
low voltage supply to the solid state AF Preamp stages that first appeared in the 'late' R-4A.
When the R-4B was designed, C172 was 'moved' inside the Twist-Lok and became the long lost C90A! Drake's draftsmen were not shy about 'reusing' component id's when drawings changed. This resulted in TWO of some component id's on a few schematics, and even THREE in one instance. :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> C90A shows up on the R4B schematic at the junction of R136 (1K 1/2 watt) and R137 (10K 2 watt)
> and pin 6 (screen) of V7.
>
> 73
> Mike W5RKL
>

>

19325. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 15:26:03 UTC
From: Garey Barrell
Topic: 18933 Message: 19325

!?!?!?!?!??!????

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Jim Shorney wrote:
> On Fri, 7 Mar 2014 21:56:00 -0800, K5MYJ wrote:
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> that they do not make a good contest radio because "everyone will be stopping you to ask what
> kind of rig you are on because the audio sounds so good". I tend to believe him since he is a
> veteran contester with an original K0 call.

19326. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 15:30:35 UTC
From: Jim Shorney
Topic: 18933 Message: 19326

Hy-Gain 3750.

On Sat, 08 Mar 2014 10:26:03 -0500, Garey Barrell wrote:

>!?!?!?!?!??!????
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> veteran contester with an original K0 call.
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19327. Re: [DrakeRadio] Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 15:36:54 UTC
From: Richard Knoppow
Topic: 18933 Message: 19327

----- Original Message -----
From: "John Sehring" <wb0eq@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, March 07, 2014 11:19 PM
Subject: [DrakeRadio] Re: Drake Microphones

Hi All,

You can transmit a broad bandwidth SSB signal but it wastes spectrum and requires an equally broad receiver to make the most of it.

Ye olde phasing method of SSB generation (and demodulation, too) has the potential to generate such a signal with at least fair fidelity. In principle, rather wide bandwidths are possible, esp. using digital signal processing techniques.

Filter-type SSB generation tends to beat the tar out of audio signals (due to poor group delay characteristics of steep filters).

Well one strong point of single sideband for communication is to reduce the bandwidth of a signal to a minimum. Less interference was fortuitous fallout.

Collins found that the band span could be 300 to 2700 Hz, or 2.4 kHz bandwidth. We all know (right?) that the human male voice has most of its energy at the low end of that spectrum but has most of its intelligence(?) at the upper end. So spectral processing is quite useful.

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When I listen to the Darth Vader crowd, I often have to invoke some bandpass tuning a la R-4A to listen to a slice of an SSB signal that contains a surplus of LF audio energy. Sometimes, such a signal makes the S-meter lively but the *recovered* audio is poor due to filter bandwidth and spectral mismatch.

So, match bandwidths on both tx and rx AND make sure that bandwidth is put in the right place.

A great deal of the research into transmission of speech was done at Bell Labs including the famous work of Harvey Fletcher and others. More was done to find optimum conditions for military speech communication. The Bell System found that extending the low end beyond what was needed for intelligibility was necessary for "natural" reproduction, something demanded by telephone subscribers. So, the telephone system went down to about 250 hz. This is an octave more than is necessary for communicating intelligence. The high end of the phone system was limited to about 2750 hz for a total bandwidth of 2500hz. This was applied to the band filters for multiplexed long distance relay systems, local calls had condiderably wider bandwidth. The research by Licklider and others shows that under _noise free_ conditions the best inteligibility is obtained with wide-band unprocessed speech. It is under noisy conditions and in power limited systems that band limited, compressed or clipped speech is superior. In fact, in noise-free systems that are not power limited processing _reduces_ intelligibility.
Now, in general, ham radio communication, at least in the HF bands, must be considered a power limited, noisy, system so speech processing is advantageous. However, one may find, like the telephone company, that naturalness can be important emough to require somewhat compromising maximum speech power.
I remember when the Collins S line first began to be heard on the air. Collins had gone from the 3.1khz filters used in the Gold Dust Twins to 2.4 khz filters. There was wide complaint that the new equipment sounded like a telephone. It may have been superior from a purely engineering standpoint but was not pleasant to listen to. Having said that I hear hi-fi SSB signals periodically. In fact, they are sometimes very strange sounding perhaps due to the kind of processors being used. I do have receivers with wide enough bandwidth to hear the entire signal. Hi-fi AM usually is no more than extending the bass a bit but listening to the 75 meter AM nets locally just reminds me of why AM disappeared for general use once SSB came around. They may sound good but, unless quite strong, are difficult to understand. Also, the notorious E.F.Johnson "sound" does cut through the junk better than the hi-fi rigs although it does not sound as pleasant.
The "sound" of a SSB signal can be strongly affected by the filter in the receiver. Some are just harsh sounding. I have an RCA AR-88 in my shack. This has very wide band IF filters and good audio. It can't eliminate interferrence like my R4B but sounds better on most signals.

One other bit of memory: When I was starting out one of
my neighbors was Ted Gillette, W6HX. Ted had a home brew rig
and had a very penetrating signal. He used a D-104 and lots
of clipping. This was also not a pleasant sounding signal
but you could hear it through anything. Ted's station is on
the front piece of one of the Orr _Radio Handbook_ editions,
I don't know which but would like to find a copy.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19328. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 16:49:04 UTC
From: <rochep@...>
Topic: 19315 Message: 19328

Thanks guys, MIne is wired just like Mike's.

C172 IS C90A on this R4A!! How confusing. O

Now on to other confusing things ... ...

paul

19329. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 18:52:41 UTC
From: Whitebear1122
Topic: 18933 Message: 19329

Is the Drake 7075 desk microphone any good in terms of audio quality? It looks nice but does it sound nice? I'm considering buying one just for the fun of having a Drake labeled microphone with my Drake rig. 73, SCott WA9WFA

19330. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 19:02:38 UTC
From: wctaylor@juno.com
Topic: 18933 Message: 19330

I get very good reports with mine.

Sent via DroidX2 on Verizon Wireless™

-----Original message-----
From: Whitebear1122 <whitebear1122@comcast.net>
To: DrakeRadio@yahoogroups.com
Sent: Sat, Mar 8, 2014 18:52:41 GMT+00:00
Subject: Re: [DrakeRadio] Drake Microphones

Is the Drake 7075 desk microphone any good in terms of audio quality? It looks nice but does it sound nice? I'm considering buying one just for the fun of having a Drake labeled microphone with my Drake rig. 73, SCott WA9WFA

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_____
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http://thirdpartyoffers.juno.com/TGL3165/531b68875cb8768871d7cmp10vuc

19331. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 19:36:47 UTC
From: Jim Shorney
Topic: 18933 Message: 19331

As I mentioned before, the 7075 appears to be essentially a Turner +3 without the compression amplifier. It's a ceramic mic that tends to sound very good in my experiece. I consistantly get unsolicited audio compliments behind the +3 on my TR-7. When I asked the Brit running W1AW/7 on 15 Meter AM for an audio report last week he said it sounded "fantastic". I was looking more for an assessment of the sound of the wideband AM from my TR-7 than of the microphone itself, but either way I'll take it.

73

-Jim
NU0C

On Sat, 8 Mar 2014 12:52:41 -0600, Whitebear1122 wrote:

>Is the Drake 7075 desk microphone any good in terms of audio quality? It looks nice but does it sound nice? I'm considering buying one just for the fun of having a Drake labeled microphone with my Drake rig. 73, SCott WA9WFA

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19332. Looking for SP-75 spare parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 19:54:21 UTC
From: <damico@...>
Topic: 19332 Message: 19332

Hello Group,
I am looking for the two front panel end caps (made of black plastic) for the SP-75, since mine are badly cracked. So I need both right and left ones. Is there any place where I can find them ? Alternatively, is somebody from this group willing to part from his/her spares, and ship them to Italy ? I can pay via Paypal...
Thanks for reading and 73,
Michele IZ2EAS

19333. Re: [DrakeRadio] Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 19:58:25 UTC
From: Jim Shorney
Topic: 18933 Message: 19333

I used to operate almost exclusively with the narrow (1.8 KHz) SSB filter because it reduced noise and interference. I was so used to it that 2.4 KHz sounded too wide to me. Interestingly, I have noted that since I did the RX audio mods to my 7-line I find myself more often than not switching to the 2.4 KHz filter because the signal can be made more intelligible and pleasant to listen to. I use the 1.8 somtimes in heavy QRM or noise to pull one through, but not as much as I used to. Then again, some stations have such horrible audio that no amount of tweaking the PBT or bandwidth helps much.

73

-Jim
NU0C

On Fri, 7 Mar 2014 23:19:02 -0800 (PST), John Sehring wrote:

>It's important that the transmit bandwidth and receive bandwidth be equal to each other to insure that no energy was wasted (on tx) outside of that bandwidth. Ditto on rx, no sense in listening to a part of the spectrum where no speech energy was transmitted--maybe only noise or QRM there.
>
>When I listen to the Darth Vader crowd, I often have to invoke some bandpass tuning a la R-4A to listen to a slice of an SSB signal that contains a surplus of LF audio energy. Sometimes, such a signal makes the S-meter lively but the *recovered* audio is poor due to filter bandwidth and spectral mismatch.
>
>So, match bandwidths on both tx and rx AND make sure that bandwidth is put in the right place.

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19334. Re: [DrakeRadio] RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 20:16:52 UTC
From: <radiomanl@...>
Topic: 19315 Message: 19334

Garey
Having a low voltage section in a can electrolytic with one or more high voltage sections is asking for trouble .
as they use a common ground it is not uncommon for internal leakage to occur between the sections when the can gets some age on it .
I had to clip many 25 volt sections loose and replace with separate filters in colour TV's that had 3 450 volt sections and a 25 volt section for the audio cathode bypass . am retired from the TV service industry .

andrew
kd5pnt

19335. Re: [DrakeRadio] Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 20:36:50 UTC
From: Richard Knoppow
Topic: 18933 Message: 19335

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 08, 2014 11:58 AM
Subject: Re: [DrakeRadio] Re: Drake Microphones

I used to operate almost exclusively with the narrow (1.8
KHz) SSB filter
because it reduced noise and interference. I was so used to
it that 2.4 KHz
sounded too wide to me. Interestingly, I have noted that
since I did the RX
audio mods to my 7-line I find myself more often than not
switching to the 2.4
KHz filter because the signal can be made more intelligible
and pleasant to
listen to. I use the 1.8 somtimes in heavy QRM or noise to
pull one through,
but not as much as I used to. Then again, some stations have
such horrible
audio that no amount of tweaking the PBT or bandwidth helps
much.

73

-Jim
NU0C

I think a lot of this is due to the digital processing
available in many (all?) modern rice box radios. I have
many times heard someone testing with someone else and
tweaking things all over the place. None of the adjustments
sounds good but none of them ever just turn the thing off.
There also seems to be no understanding that the receiver is
going to have a strong effect on what is heard. I heard
some DX station the other day with so much processing I
absolutely could not understand a word. The stations working
him sounded fine. I don't know how he got away with it,
maybe people with better hearing than I have did better.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19336. Re: [DrakeRadio] RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 20:41:15 UTC
From: Garey Barrell
Topic: 19315 Message: 19336

Andrew -

Good point. I seem to recall that also somewhere in the dim past! :-) That leakage may also have had something to do with the PS ripple getting on the audio stage, which is what I remembered. There were a lot of those 'two high voltage and one low voltage' in radios also.
Probably seemed like a good idea at the time. These only have half that high voltage, but still. The four section caps used in these guy's radios are all ~250 V.

I've done some TV service too, house calls with the big tube caddy even! :-) How's that for dating someone??

No Jim, NOT that kind of dating!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

radiomanl@... wrote:
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>
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> Having a low voltage section in a can electrolytic with one or more high voltage sections is
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> that had 3 450 volt sections and a 25 volt section for the audio cathode bypass . am retired
> from the TV service industry .
>
> andrew
> kd5pnt
>
>

19337. Re: [DrakeRadio] Looking for SP-75 spare parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 20:48:18 UTC
From: Garey Barrell
Topic: 19332 Message: 19337

These are direct replacements for the plastic end caps that are located
on both the right and left side of the front panels. Michael March,
K4QU, 242 Clay Hill Dr., Winchester, VA 22602, k4qu@... ,
lmmarch@... , Phone: 540-662-4279

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

damico@... wrote:
>
>
>
> Hello Group,
>
> I am looking for the two front panel end caps (made of black plastic) for the SP-75,
since
> mine are badly cracked. So I need both right and left ones. Is there any place where I
can
> find them ? Alternatively, is somebody from this group willing to part from his/her
spares,
> and ship them to Italy ? I can pay via Paypal...
>
> Thanks for reading and 73,
>
> Michele IZ2EAS
>
>

19338. Re: [DrakeRadio] Looking for SP-75 spare parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 21:04:23 UTC
From: <damico@...>
Topic: 19332 Message: 19338

Thanks Gary,
precious as usual...
73,
Michele IZ2EAS

19339. Re: [DrakeRadio] RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 21:28:17 UTC
From: <radiomanl@...>
Topic: 19315 Message: 19339

I started repairing in 1968 .

andrew
kd5pnt

19340. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 21:43:55 UTC
From: <af6c@...>
Topic: 19315 Message: 19340

I'm in the process of replacing C90 right now. On the newer 11-tube version of the R4A The capacitor C90A can be found on the schematic near the upper right corner of the schematic. It is identified as C-172. On the older R4A receivers this was a separate capacitor.

The Hamfest Haystack capacitor replacement kit includes a separate 22µF capacitor as well as the C90A 22/250V section.

Bob, Af6C

19341. Re: [DrakeRadio] Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-08 21:46:19 UTC
From: Jim Shorney
Topic: 18933 Message: 19341

There is one particular model of Yaesu, very expensive, that has a distinct sound that I can only refer to as mushy and "artifact-ey". I can always tell one on the air. It's a bit like the Cylon from BSG that someone else mentioned, but difficult to describe if you haven't heard it. I don't think it sounds good at all. I worked someone at ARRL HQ a few years back that was using one and I really had to bite my tongue to keep from telling him that his audo sucked. I probably should have told him.

Some of the foreign stations that I hear during the DX contacts are absolutely horrible. The audio is so bad and they rattle their call off so rapidly that it is practically impossible to get the call correct. I just want to tune past them and find another contact.

73

-Jim
NU0C

On Sat, 8 Mar 2014 12:36:50 -0800, Richard Knoppow wrote:

>I think a lot of this is due to the digital processing
>available in many (all?) modern rice box radios. I have
>many times heard someone testing with someone else and
>tweaking things all over the place. None of the adjustments
>sounds good but none of them ever just turn the thing off.
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>going to have a strong effect on what is heard. I heard
>some DX station the other day with so much processing I
>absolutely could not understand a word. The stations working
>him sounded fine. I don't know how he got away with it,
>maybe people with better hearing than I have did better.

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19342. Re: [DrakeRadio] Re: Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 09:27:14 UTC
From: Richard Knoppow
Topic: 18933 Message: 19342

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, March 08, 2014 1:46 PM
Subject: Re: [DrakeRadio] Re: Drake Microphones

>
> There is one particular model of Yaesu, very expensive,
> that has a distinct
> sound that I can only refer to as mushy and "artifact-ey".
> I can always tell
> one on the air. It's a bit like the Cylon from BSG that
> someone else mentioned,
> but difficult to describe if you haven't heard it. I don't
> think it sounds good
> at all. I worked someone at ARRL HQ a few years back that
> was using one and I
> really had to bite my tongue to keep from telling him that
> his audo sucked. I
> probably should have told him.
>
> Some of the foreign stations that I hear during the DX
> contacts are absolutely
> horrible. The audio is so bad and they rattle their call
> off so rapidly that it
> is practically impossible to get the call correct. I just
> want to tune past
> them and find another contact.
>
> 73
>
> -Jim
> NU0C
>
The last sounds like what I heard a couple of days
ago. I don't know how anyone could work this fellow.
Digital processing can do a lot more than just equalize
and compress. It can do things that no linear circuit could
do such as add non-harmonically related frequencies to the
signal. I think the first box to do this was the Aphex,
made for recording studios but also used in broadcasting.
It can add highs where there are none and can sound very
strange. I don't think any of this makes signals more
readable under any circumstances but its there on the menus
so folks use them. I wonder how many hams have stuff set up

on their rigs they don't know about. I hate multi-layered menus, fortunately, my old-fashioned Drake rig doesn't have any.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19343. RE: For Sale: Drake TR-4C, MS-4, AC-4, MN-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 10:53:50 UTC
From: <w7boz@...>
Topic: 18622 Message: 19343

The Drake HF station sold on Ebay for $441.

Thanks group for you help. Going to back out since I no longer have a Drake.

Kevin
W7BOZ

19344. Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 18:25:14 UTC
From: <k6ctw@...>
Topic: 19344 Message: 19344

All - I got an R-4A on eBay and am very happy with it cosmetically. Replaced the #47 bulbs and put in blue filters and it looks new when powered on. Did the PTO stability mod with the piece of braid and glued the cap on the PTO coil back in place. It did have a bit of hum though so replaced the electrolytics with the Hayseed Hamfest set. That cured quite a bit of it. However, in replacing the electrolytic can you have to un-screw and move the PTO so that you can take out a screw holding a transformer to unsolder the bent over pins on the old and new electrolytic can from the chassis. When I put everything back together, it works much better, with a lot less hum (I must still have a cap, orange drops on order, or tube somewhere that needs work). The only thing is that the dial calibrarion is now 12 KC off and I can just barely get the dial to the right place with the little red knob. Looked thru the maintenance section of the manual I printed off and it doesn't really explain how to reset that. I know I need to get Gary's manuals on CD (ordering right after I get done with this) but if it's quick, I'd appreciate any advice. Thanks in advance - 73 - Ken Miller, K6CTW

19345. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 18:48:26 UTC
From: Richard Knoppow
Topic: 19344 Message: 19345

----- Original Message -----
From: <k6ctw@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 09, 2014 11:25 AM
Subject: [DrakeRadio] Re-Calibration R-4A

> All - I got an R-4A on eBay and am very happy with it
> cosmetically. Replaced the #47 bulbs and put in blue
> filters and it looks new when powered on. Did the PTO
> stability mod with the piece of braid and glued the cap on
> the PTO coil back in place. It did have a bit of hum
> though so replaced the electrolytics with the Hayseed
> Hamfest set. That cured quite a bit of it. However, in
> replacing the electrolytic can you have to un-screw and
> move the PTO so that you can take out a screw holding a
> transformer to unsolder the bent over pins on the old and
> new electrolytic can from the chassis. When I put
> everything back together, it works much better, with a lot
> less hum (I must still have a cap, orange drops on order,
> or tube somewhere that needs work). The only thing is
> that the dial calibrarion is now 12 KC off and I can just
> barely get the dial to the right place with the little red
> knob. Looked thru the maintenance section of the manual I
> printed off and it doesn't really explain how to reset
> that. I know I need to get Gary's manuals on CD (ordering
> right after I get done with this) but if it's quick, I'd
> appreciate any advice. Thanks in advance - 73 - Ken
> Miller, K6CTW

I am not sure about the R4A but if its the same as on
the R4B the frequency dial slips on a hub. Check its end
points. With the dial pointer centered the dial should come
to the center of the two arrows. If it does not you can slip
it over with your fingers from behind. If you had the VFO
out or loosened it quite possible the dial got moved.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19346. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 18:56:30 UTC
From: Steve Wedge
Topic: 19344 Message: 19346

Ken,

You may have bumped the PTO when you had it out. The gear near the front is held in mesh by a spring. If you back that gear out with your finger, you can turn the dial to a position closer to the actual frequency. You'll probably find that it skipped one or two teeth.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 9, 2014, at 2:25 PM, <k6ctw@...> wrote:
>
> All - I got an R-4A on eBay and am very happy with it cosmetically. Replaced the #47 bulbs and put in blue filters and it looks new when powered on. Did the PTO stability mod with the piece of braid and glued the cap on the PTO coil back in place. It did have a bit of hum though so replaced the electrolytics with the Hayseed Hamfest set. That cured quite a bit of it. However, in replacing the electrolytic can you have to un-screw and move the PTO so that you can take out a screw holding a transformer to unsolder the bent over pins on the old and new electrolytic can from the chassis. When I put everything back together, it works much better, with a lot less hum (I must still have a cap, orange drops on order, or tube somewhere that needs work). The only thing is that the dial calibrarion is now 12 KC off and I can just barely get the dial to the right place with the little red knob. Looked thru the maintenance section of the manual I printed off and it doesn't really explain how to reset that. I know I need to get Gary's manuals on CD (ordering right after I get done with this) but if it's quick, I'd appreciate any advice. Thanks in advance - 73 - Ken Miller, K6CTW
>
>

19347. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 18:57:30 UTC
From: Garey Barrell
Topic: 19344 Message: 19347

Ken -

Welcome to the club! Or rehab group, as the case may be!

If you look down on top of the PTO gearbox, from the front, you'll notice that there is a spring
pulling on the shaft of the nylon gear on the left. The hole in the front gearbox wall is elongated, allowing you to push that shaft to the left, disengaging that gear. While it's disengaged, the transparent dial will rotate freely and you can set it very near center. If it
wants to settle just to either side of the front panel fiducial, you can hold the main transparent dial and turn the MAIN TUNING knob. The dial will slip, and you can set it right on
the center mark. It may be a little hard to get it loose after 50 years, but it will move.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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k6ctw@... wrote:
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>

19348. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 19:37:25 UTC
From: Brenton Crowhurst
Topic: 18933 Message: 19348

This raises and interesting point, Jim.

I suppose back in the days of olde, most hams would really want to know if their signal was off, so they could do something about it.

Now if you tell a guy his signal is off, you risk insulting his intelligence, perhaps because he spent thousands on a radio that doesn't even sound ordinary.

I'm not sure which radio you're referring to, but I have talked to two hams with IC 7800s that sounded . . . hmmmm. Just lightly less good than average. Could be in the settings.

73, de

Brenton VE6IE

On Mar 8, 2014, at 2:46 PM, Jim Shorney <jshorney@inebraska.com> wrote:

>
> There is one particular model of Yaesu, very expensive, that has a distinct
> sound that I can only refer to as mushy and "artifact-ey". I can always tell
> one on the air. It's a bit like the Cylon from BSG that someone else mentioned,
> but difficult to describe if you haven't heard it. I don't think it sounds good
> at all. I worked someone at ARRL HQ a few years back that was using one and I
> really had to bite my tongue to keep from telling him that his audo sucked. I
> probably should have told him.
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> horrible. The audio is so bad and they rattle their call off so rapidly that it
> is practically impossible to get the call correct. I just want to tune past
> them and find another contact.
>
> 73
>
> -Jim
> NU0C
>
> On Sat, 8 Mar 2014 12:36:50 -0800, Richard Knoppow wrote:
>
> >I think a lot of this is due to the digital processing
> >available in many (all?) modern rice box radios. I have
> >many times heard someone testing with someone else and
> >tweaking things all over the place. None of the adjustments
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> >absolutely could not understand a word. The stations working

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>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
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> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
>
>
>

19349. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 19:38:38 UTC
From: Brenton Crowhurst
Topic: 18933 Message: 19349

BTW,

Should someone move that 14.178 be nominated as the "Cylon Frequency"?

Hihi,

Brenton, VE6IE

On Mar 8, 2014, at 2:46 PM, Jim Shorney <jshorney@...> wrote:

>
> There is one particular model of Yaesu, very expensive, that has a distinct
> sound that I can only refer to as mushy and "artifact-ey". I can always tell
> one on the air. It's a bit like the Cylon from BSG that someone else mentioned,
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> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.

> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
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> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
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> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
>
>
>

19350. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 19:40:17 UTC
From: <k6ctw@...>
Topic: 19344 Message: 19350

Gary - Thanks very much! I'll do that this evening. 73 - Ken

19351. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 20:27:48 UTC
From: Jim Shorney
Topic: 18933 Message: 19351

By your command.

On Sun, 9 Mar 2014 13:38:38 -0600, Brenton Crowhurst wrote:

>BTW,
>
>Should someone move that 14.178 be nominated as the "Cylon Frequency"?
>
>Hihi,
>
>Brenton, VE6IE
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>
>On Mar 8, 2014, at 2:46 PM, Jim Shorney <jshorney@...> wrote:
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>> --
>> Ham Radio NU0C
>> Lincoln, Nebraska, U.S.S.A.
>> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>>
>> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>>
>> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
>> http://incolor.inetnebr.com/jshorney
>> http://www.nebraskaghosts.org
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>

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Ham Radio NU0C
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http://www.nebraskaghosts.org

19352. Re: [DrakeRadio] Drake Microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 20:33:21 UTC
From: Brenton Crowhurst
Topic: 18933 Message: 19352

LOL!

I mean HI HI!

On Mar 9, 2014, at 2:27 PM, Jim Shorney <jshorney@inebraska.com> wrote:

>
> By your command.
>
> On Sun, 9 Mar 2014 13:38:38 -0600, Brenton Crowhurst wrote:
>
> >BTW,
> >
> >Should someone move that 14.178 be nominated as the "Cylon Frequency"?
> >
> >Hihi,
> >
> >Brenton, VE6IE
> >
> >
> >On Mar 8, 2014, at 2:46 PM, Jim Shorney <jshorney@inebraska.com> wrote:
> >
> >>
> >> There is one particular model of Yaesu, very expensive, that has a distinct
> >> sound that I can only refer to as mushy and "artifact-ey". I can always tell
> >> one on the air. It's a bit like the Cylon from BSG that someone else mentioned,
> >> but difficult to describe if you haven't heard it. I don't think it sounds good
> >> at all. I worked someone at ARRL HQ a few years back that was using one and I
> >> really had to bite my tongue to keep from telling him that his audo sucked. I
> >> probably should have told him.
> >>
> >> Some of the foreign stations that I hear during the DX contacts are absolutely
> >> horrible. The audio is so bad and they rattle their call off so rapidly that it
> >> is practically impossible to get the call correct. I just want to tune past
> >> them and find another contact.
> >>
> >> 73
> >>
> >> -Jim
> >> NU0C
> >>
> >> On Sat, 8 Mar 2014 12:36:50 -0800, Richard Knoppow wrote:
> >>
> >> >I think a lot of this is due to the digital processing
> >> >available in many (all?) modern rice box radios. I have
> >> >many times heard someone testing with someone else and

> >> >tweaking things all over the place. None of the adjustments
> >> >sounds good but none of them ever just turn the thing off.
> >> >There also seems to be no understanding that the receiver is
> >> >going to have a strong effect on what is heard. I heard
> >> >some DX station the other day with so much processing I
> >> >absolutely could not understand a word. The stations working
> >> >him sounded fine. I don't know how he got away with it,
> >> >maybe people with better hearing than I have did better.
> >>
> >> --
> >> Ham Radio NU0C
> >> Lincoln, Nebraska, U.S.S.A.
> >> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
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> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>
> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
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>
>
>

19353. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 21:25:03 UTC
From: <rochep@...>
Topic: 19315 Message: 19353

Good news. I replaced the old electrolytics with a Hayseed can. I basically followed directions outlined by Terry Dayton on his YouTube video. I do not have a Dremel tool, but I used a Dremel grinding bit with my regular electric drill. Wasn't easy, kind of scary grinding metal tabs in the guts of a beautiful old radio, but it came out fine. And went went back together fine.

Bad news. Radio does not work now! To be fair, I DON'T think its because of my filter cap job. I replaced the paper caps, after each one tested radio (and it was fine). I noticed last night I heard a sort of "pop" in the audio, then it was dead. But then gave it a whack, and audio came back.. I found this behavior on and off all night. I think it a the 6EH5 audio tube cuz it I just touched it it would go in and out or PFFZZT or (bad connection?). But no way to test this tube.

I think my audio tube is shot, ordered a new one. "Radio" seems to work, I can peak the S meter, it goes up and down as I tune across the bands, and I can peak the CAL tone. Just no audio.

I checked my B+, seems fine. I'm not too worried, but a bit disappointed. Once new tube comes in I will do detailed voltage checks (resistance check was basically fine, the only resistance values that were low with my DMM were on the audio tube. Oh well.

paul

19354. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-09 23:13:04 UTC
From: <k6ctw@...>
Topic: 19344 Message: 19354

I'm really not new to the restoration of Drake gear having completely rebuilt a 2-B/2-BQ. Also own and have upgraded my R-4C with the Sherwood mods and have maintained my T-4XC and rebuilt it's AC-4. The R-4A (old style 13 tube) was a pleasant surprise as I didn't expect to win the auction. However, I was looking for either an R-4A or a 2-C (with 2-NB) as my 2-B has become un-usable on the PAN winter frequency because of some nasty noise. Thus I needed a noise blanker equipped receiver to go with the Heathkit DX-60. The R-4C's noise blanker handles it fine by the way.

Love Drake gear and maybe one of these days I'll get a 2-NT as well.

Thanks again for the excellent help (this really is a great forum) and look forward to getting the K4OAH CD!

73 - ken

19355. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 14:03:59 UTC
From: <k6ctw@...>
Topic: 19344 Message: 19355

Thanks again to all, the R-4A is now back on calibration. I've been very impressed with it so far. Now I have to replace a couple of tubes that are "going" (e.g. the 6EH5 is microphonic) and i've decided to replace some of the capacitors with new polypropolene ones. Once complete, a friend has agreed to let me use all of his lab bench equipment and I'm going to do a full re-alignment and calibration. That should finish the restoration. Then on to building a speaker for it!

73 - Ken, K6CTW

19356. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 14:31:44 UTC
From: Garey Barrell
Topic: 19344 Message: 19356

Ken -

Check R43, and especially R44. The Cathode voltage should not be over 3 VDC. This sets the current through V7, a very 'hot' stage. R44 going up in value -OR- a gassy 6EH5 can increase
this current, resulting in an open Output transformer, T16. Just a little overcurrent in this
stage stresses R43 causing it to go up in value.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k6ctw@... wrote:
>
>
> Thanks again to all, the R-4A is now back on calibration. I've been very impressed with it so
> far. Now I have to replace a couple of tubes that are "going" (e.g. the 6EH5 is microphonic)
> and i've decided to replace some of the capacitors with new polypropolene ones. Once
> complete, a friend has agreed to let me use all of his lab bench equipment and I'm going to do
> a full re-alignment and calibration. That should finish the restoration. Then on to building
> a speaker for it!
>
>

19357. TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 20:46:24 UTC
From: Joe W2KJ
Topic: 19357 Message: 19357

Been toying around with the idea of getting a TR7 or TR7A to go with my C-Line and TR4CW/RIT...I've always wanted a TR7 but never managed it.

I'm wondering what the going prices for these units are these days...I would love to get a TR7A but probably out of my price range.

So....any comments or suggestions as to pricing for a nice unit??

Many thanks for any info.

73, Joe W2KJ

19358. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 22:10:15 UTC
From: Evan Rolek
Topic: 19357 Message: 19358

Joe,

There is a wide range of prices depending on what filters are installed, with or without noise blanker, with or without AUX-7 board, with or without fan, etc. Typically they are sold with a power supply but occasionally not. Cosmetic condition will affect price too. Whether it is a TR-7 or the A model is relevant also. Having said that, I've seen prices over the range of $600 to $900, "depending".

Good luck on your search.

73,

Evan, K9SQG

-----Original Message-----
From: Joe W2KJ <jotrom@bellsouth.net>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 10, 2014 4:46 pm
Subject: [DrakeRadio] TR7 and TR7A prices

Been toying around with the idea of getting a TR7 or TR7A to go with my C-Line and TR4CW/RIT...I've always wanted a TR7 but never managed it.

I'm wondering what the going prices for these units are these days...I would love to get a TR7A but probably out of my price range.

So....any comments or suggestions as to pricing for a nice unit??

Many thanks for any info.

73, Joe W2KJ

19359. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 22:45:29 UTC
From: Dieter Horst
Topic: 19357 Message: 19359

Hello Joey,

Evan is quite right. Here in Germany prices are different so it may not be of much value if I told you ours.

But I would add a little bit:
- A TR7A is quite high in price. But if you want a TR7 for operating (not for collecting), just take a TR7 (without A)
- Higher serial numbers have the non-sticky cabinets. I prefer these. They just look better.
- AUX7 boards are nice but not needed in my opinion. You can easily go to any frequency using the up/down buttons of your TR7. Transmitting on all bands needs a little mod. AUX7s go for very high prices if sold separately.
- The NB7 is rarely needed in normal operating conditions. But it will cost an extra $100 or so
- Filters are sometimes hard to get. A loaded TR7 will relieve you from the effort to get all the additional filters. In my opinion, the 1.8 kHz for SSB is very good. For the serious CW op you need at least the 500 Hz. The 300 Hz filter is nice but only needed in very crowded bands.
- The PS7 will give you plug and play operation. It is large and heavy but very reliable.
- A fan is good if you operate contests. It need not be an FA7. Others will work fine, too.

Just my personal thoughts...

I would never want to give away my TR7. It is an extremely good radio that can easily compete with modern ones.

73, Dieter DL5RDO

Am 10.03.2014 23:10, schrieb Evan Rolek:
>
> Joe,
>
>
> There is a wide range of prices depending on what filters are
> installed, with or without noise blanker, with or without AUX-7 board,
> with or without fan, etc. Typically they are sold with a power supply
> but occasionally not. Cosmetic condition will affect price too.
> Whether it is a TR-7 or the A model is relevant also. Having said
> that, I've seen prices over the range of $600 to $900, "depending".
>
> Good luck on your search.
>

> 73,
>
> Evan, K9SQG
>
> -----Original Message-----
> From: Joe W2KJ <jotrom@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Mon, Mar 10, 2014 4:46 pm
> Subject: [DrakeRadio] TR7 and TR7A prices
>
> Been toying around with the idea of getting a TR7 or TR7A to go with
> my C-Line and TR4CW/RIT...I've always wanted a TR7 but never managed it.
>
> I'm wondering what the going prices for these units are these days...I
> would love to get a TR7A but probably out of my price range.
>
> So....any comments or suggestions as to pricing for a nice unit??
>
> Many thanks for any info.
>
> 73, Joe W2KJ
>

19360. Tr-4cw. Plate meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-10 23:32:26 UTC
From: k7mks@...
Topic: 19360 Message: 19360

I there a way to mechanically zero the plate current meter. MIne rests at 35-40 ma or so.

Thank you, Joe k7mks

Sent from Xfinity Connect Mobile App

19361. Re: [DrakeRadio] Tr-4cw. Plate meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 00:03:09 UTC
From: Doug
Topic: 19360 Message: 19361

Yes. It requires taking the meter top off. There is a slotted adjustment for the meter magnet. Sounds like something is stuck in there though. I would take a close look at it first.

Doug - N9XTF

Sent from my iPhone

> On Mar 10, 2014, at 19:32, k7mks@... wrote:
>
> I there a way to mechanically zero the plate current meter. MIne rests at 35-40 ma or so.
>
> Thank you, Joe k7mks
>
> Sent from Xfinity Connect Mobile App
>

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Quick and Simple Internet Access
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19362. Re: [DrakeRadio] Tr-4cw. Plate meter zero

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 00:16:15 UTC
From: Steve Wedge
Topic: 19360 Message: 19362

Joe, the answer is maybe. I believe most of the meters do have a screw to set zero, but a small number don't. You won't know until you get the meter assembly apart.

See the photo I posted some months ago that shows the screw location.

Be sure you mark or otherwise note the termination of each of the four wires.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 10, 2014, at 7:32 PM, k7mks@comcast.net wrote:
>
> I there a way to mechanically zero the plate current meter. MIne rests at 35-40 ma or so.
>
> Thank you, Joe k7mks
>
> Sent from Xfinity Connect Mobile App
>

19363. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 01:03:02 UTC
From: Jim Shorney
Topic: 19357 Message: 19363

To add to what others have said....

There is absolutely no technical advantage to owning an "A". You are paying extra for a letter. Same radio. And unless you get a money back guarantee that the options are all there, you could be getting a stripped unit. Circuit improvements over the years have been minimal, and there is absolutely no functional difference that you would be able to spot between a loaded late model non-A and an A.

Hamfests and private sales are the best places to find deals. If you are capable and prepared to do some refurb work, I've seen $300 or less (without PS-7). Sometimes for fully loaded units. I have found that often if the unit has the Drake-labeled fan on the back it has at least some other options installed as well, but there is no way to tell from the outside unless you can power it up and give it a good test run.

The fans are highly recommended, period. Both for the rig and the PS-7. They are a common form factor, so any fan that fits the hole can be made to work. They help with stability and component life. Mount them to pull air OUT.

Don't turn your nose up at the noise blanker; if you live in an area that is plauged with power line noise the NB can be highly effective. While it is true that the AUX-7 is not needed, it's handy for access to the WARC bands and saves a lot of wear and tear on the UP/DOWN buttons. If you are contemplating operating split, get an RV-7 to go along with the TR-7.

You don't need the PS-7 to run the radio. Any decent 13.8V 30 Amp power supply will work with an appropriate cable.

73

-Jim
NU0C

On Mon, 10 Mar 2014 16:46:24 -0400, Joe W2KJ wrote:

>Been toying around with the idea of getting a TR7 or TR7A to go with my C-Line and TR4CW/RIT...I've always wanted a TR7 but never managed it.
>
>I'm wondering what the going prices for these units are these days...I would love to get a TR7A but probably out of my price range.
>
>So....any comments or suggestions as to pricing for a nice unit??
>
>Many thanks for any info.
>
> 73, Joe W2KJ

--

☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19364. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 00:05:46 UTC
From: Don Buska - The Radio Lab Works
Topic: 19357 Message: 19364

On 3/10/2014 5:45 PM, Dieter Horst wrote:
> - AUX7 boards are nice but not needed in my opinion. You can easily go
> to any frequency using the up/down buttons of your TR7. Transmitting
> on all bands needs a little mod. AUX7s go for very high prices if sold
> separately.

--
I don't think you will be able to listen to 0-1.5MHZ (LF) without the AUX7 (with the LF modules) unless you do a programming diode mod to the mother board. So if you ever plan on doing any LF DX work you might want to find one with the AUX7 board. Dieter is 100% correct these boards get pricy if you buy them after-the-fact, so it's probably best to buy a TR7 with one already installed.

73 - Don N9OO

19365. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 02:49:17 UTC
From: Evan Rolek
Topic: 19357 Message: 19365

Jim's posting triggered my memory. There are some TR-7s that have been altered to look like the A model. I'm not talking about the electrical improvements between the standard TR-7 and the A model, I'm referring to people that have added the "A" front panel strip to a standard TR-7 to command a higher price. Just a word of caution...

73,

Evan

-----Original Message-----
From: Jim Shorney <jshorney@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 10, 2014 9:03 pm
Subject: Re: [DrakeRadio] TR7 and TR7A prices

To add to what others have said....

There is absolutely no technical advantage to owning an "A". You are paying extra for a letter. Same radio. And unless you get a money back guarantee that the options are all there, you could be getting a stripped unit. Circuit improvements over the years have been minimal, and there is absolutely no functional difference that you would be able to spot between a loaded late model non-A and an A.

Hamfests and private sales are the best places to find deals. If you are capable and prepared to do some refurb work, I've seen $300 or less (without PS-7). Sometimes for fully loaded units. I have found that often if the unit has the Drake-labeled fan on the back it has at least some other options installed as well, but there is no way to tell from the outside unless you can power it up and give it a good test run.

The fans are highly recommended, period. Both for the rig and the PS-7. They are a common form factor, so any fan that fits the hole can be made to work. They help with stability and component life. Mount them to pull air OUT.

Don't turn your nose up at the noise blanker; if you live in an area that is plauged with power line noise the NB can be highly effective. While it is true that the AUX-7 is not needed, it's handy for access to the WARC bands and saves a lot of wear and tear on the UP/DOWN buttons. If you are contemplating operating split, get an RV-7 to go along with the TR-7.

You don't need the PS-7 to run the radio. Any decent 13.8V 30 Amp power supply will work with an appropriate cable.

73

-Jim
NU0C

On Mon, 10 Mar 2014 16:46:24 -0400, Joe W2KJ wrote:

>Been toying around with the idea of getting a TR7 or TR7A to go with my C-Line and TR4CW/RIT...I've always wanted a TR7 but never managed it.
>
>I'm wondering what the going prices for these units are these days...I would love to get a TR7A but probably out of my price range.
>
>So....any comments or suggestions as to pricing for a nice unit??
>
>Many thanks for any info.
>
> 73, Joe W2KJ

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19366. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 03:03:07 UTC
From: Joe W2KJ
Topic: 19357 Message: 19366

Thanks for the info Evan...I've read a bit about this type of scam on the WB4HFN Drake page...very good info there.

73, Joe W2KJ

> Jim's posting triggered my memory. There are some TR-7s that have been altered to look like the A model. I'm not talking about the electrical improvements between the standard TR-7 and the A model, I'm referring to people that have added the "A" front panel strip to a standard TR-7 to command a higher price. Just a word of caution...
>
>
> 73,
>
> Evan

19367. Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 07:29:04 UTC
From: Dieter Horst
Topic: 19357 Message: 19367

Hey... true! Never noticed that you cannot select the 0-1.5 MHz segments
with the DR7 alone. Probably because I use my R7 when listening to VLF.

Thanks Don!

73, Dieter DL5RDO

Am 11.03.2014 01:05, schrieb Don Buska - The Radio Lab Works:
>
>
> On 3/10/2014 5:45 PM, Dieter Horst wrote:
> > - AUX7 boards are nice but not needed in my opinion. You can easily go
> > to any frequency using the up/down buttons of your TR7. Transmitting
> > on all bands needs a little mod. AUX7s go for very high prices if sold
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>
> --
> I don't think you will be able to listen to 0-1.5MHZ (LF) without the
> AUX7 (with the LF modules) unless you do a programming diode mod to the
> mother board. So if you ever plan on doing any LF DX work you might
> want to find one with the AUX7 board. Dieter is 100% correct these
> boards get pricy if you buy them after-the-fact, so it's probably best
> to buy a TR7 with one already installed.
>
> 73 - Don N9OO
>
>

19368. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 09:57:49 UTC
From: <k6ctw@...>
Topic: 19344 Message: 19368

Gary,

Thanks! Will do. 73 - Ken, K6CTW

19369. Re: Re: [DrakeRadio] TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 10:04:32 UTC
From: arc5@ix.netcom.com
Topic: 19357 Message: 19369

Not always a "scam." Drake did many "upgrades" and added the strips themselves. And I have a very early TR-7A which has everything except the extra mark above the aux audio jack. So don't be too quick to call "scam." Dave S.

------Original Message------
From: Joe W2KJ <jotrom@...>
To: <DrakeRadio@yahoogroups.com>,"Joe W2KJ" <jotrom@...>
Date: Monday, March 10, 2014 11:03:07 PM GMT-4
Subject: Re: [DrakeRadio] TR7 and TR7A prices

Thanks for the info Evan...I've read a bit about this type of scam on the WB4HFN Drake page...very good info there.

73, Joe W2KJ

> Jim's posting triggered my memory. There are some TR-7s that have been altered to look like the A model. I'm not talking about the electrical improvements between the standard TR-7 and the A model, I'm referring to people that have added the "A" front panel strip to a standard TR-7 to command a higher price. Just a word of caution...
>
>
> 73,
>
> Evan

19370. Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 15:07:24 UTC
From: Bill
Topic: 19357 Message: 19370

Finally something I may contribute to....:)

I purchased a pretty complete TR-7 setup almost a year ago.
And thanks again to the gang on here for the HELP!

As a result, I have been watching prices on a regular basis.
They are everywhere from $500 up to $1000 for a working TR7 alone, no PS or other peripherals.

It appears that a working TR7 is worth more broken up into individual boards than as a complete unit. I think this is driving the price higher and higher. The TR7 is unique in that "motherboard" construction so it lends itself to being parted-out. Any other opinions on this?

Having said that, I got mine for $350 from a fellow club member.
I got everything except a speaker.
PS, VFO, Electronic Keyer, Speech Processor, Mic.
I love this radio.

Morale of the story is, keep looking and good luck

73
Bill
W4WCS
formerly N2VIL

19371. Re: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:00:46 UTC
From: Joe W2KJ
Topic: 19357 Message: 19371

Bill...good going on such a find.

If anyone out there has a TR7 with PS, VFO, electronic keyer, Speech Processor and microphone all for $350 please let me know I will buy it (grin)!!!!

Seriously, a high serial number TR7 is something I would seriously consider.

73, Joe W2KJ
TR4CW/RIT, C-Line

On Mar 11, 2014, at 11:07 AM, Bill wrote:

> Finally something I may contribute to....:)
>
> I purchased a pretty complete TR-7 setup almost a year ago.
> And thanks again to the gang on here for the HELP!
>
> As a result, I have been watching prices on a regular basis.
> They are everywhere from $500 up to $1000 for a working TR7 alone, no PS or other peripherals.
>
> It appears that a working TR7 is worth more broken up into individual boards than as a complete unit. I think this is driving the price higher and higher. The TR7 is unique in that "motherboard" construction so it lends itself to being parted-out. Any other opinions on this?
>
> Having said that, I got mine for $350 from a fellow club member.
> I got everything except a speaker.
> PS, VFO, Electronic Keyer, Speech Processor, Mic.
> I love this radio.
>
> Morale of the story is, keep looking and good luck
>
> 73
> Bill
> W4WCS
> formerly N2VIL
>

19372. Re: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:19:44 UTC
From: Don Cunningham
Topic: 19357 Message: 19372

Joe,
I have kept quiet on this thread, but there is something we are missing telling you that we really should. Actually, "high serial number" can be any number above one I have just bought from a good friend that is serial numbered 5352. You can tell because it will have a three sectioned rear panel. Those serial numbers and up will contain most of the "improvements" or they can be easily added to the rig, so you gain very little paying the high prices commanded for the TR7A or "VERY high serial numbered", RARE, rigs, HI. Just the experiences of one who owns more TR7's than I will admit at any one time, HI. A good friend of mine had bought this rig new, making it a one owner that contains nearly every accessory that Drake sold for them. What it doesn't have, I think I have collected over the years from others I have bought. I will likely have to put a little time into it, as it hasn't been even turned on for 20 years, but that's part of the fun!!!

Just look around, keep your eyes and ears open and you will find one that you can buy. I will likely sell some of mine later, some as projects, but am not considering it right now.
Good luck!
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3722/7179 - Release Date: 03/11/14

19373. Re: [DrakeRadio] Re: TR7 $

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:22:09 UTC
From: Chgypsy@...
Topic: 19373 Message: 19373

Indeed you are fortunate.....Carl wd8nhk

billnopic@... (mailto:billnopic@...) writes:

Having said that, I got mine for $350 from a fellow club member.
I got everything except a speaker.
PS, VFO, Electronic Keyer, Speech Processor, Mic. Bill W4WCS

19374. Re: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:24:20 UTC
From: Chgypsy@...
Topic: 19357 Message: 19374

Aw ! C'mon Don, tis about time, you moved a couple of years ago. Carl
wd8nhk

donc@... writes:

What it doesn't have, I think I have collected over the years from others
I have bought. I will likely have to put a little time into it, as it
hasn't been even turned on for 20 years, Don, WB5HAK

19375. Re: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:32:52 UTC
From: Don Cunningham
Topic: 19357 Message: 19375

More like 13 years ago, Carl!! This one I don't have home yet, so no chance to turn it on, HI. You are right on the others, no excuses. Time gets away.
73

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3722/7179 - Release Date: 03/11/14

19376. RE: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 16:41:50 UTC
From: Keith R. Erickson
Topic: 19357 Message: 19376

Got three here in this stable plus a tR-5

K0GNW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Don Cunningham
Sent: Tuesday, March 11, 2014 11:20 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: TR7 and TR7A prices

Joe,

I have kept quiet on this thread, but there is something we are missing telling you that we really should. Actually, "high serial number" can be any number above one I have just bought from a good friend that is serial numbered 5352. You can tell because it will have a three sectioned rear panel. Those serial numbers and up will contain most of the "improvements" or they can be easily added to the rig, so you gain very little paying the high prices commanded for the TR7A or "VERY high serial numbered", RARE, rigs, HI. Just the experiences of one who owns more TR7's than I will admit at any one time, HI. A good friend of mine had bought this rig new, making it a one owner that contains nearly every accessory that Drake sold for them. What it doesn't have, I think I have collected over the years from others I have bought. I will likely have to put a little time into it, as it hasn't been even turned on for 20 years, but that's part of the fun!!!

Just look around, keep your eyes and ears open and you will find one that you can buy. I will likely sell some of mine later, some as projects, but am not considering it right now.

Good luck!

73,

Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4335 / Virus Database: 3722/7179 - Release Date: 03/11/14

19377. Re: [DrakeRadio] Re: TR7 and TR7A prices

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-11 21:15:49 UTC
From: Jim Shorney
Topic: 19357 Message: 19377

You don't even want to know about the estate system I fell into a couple of years back. It needed serious cleaning, but included a loaded TR-7, RV-7, PS-7, L-7, DL-1000, and 7077 mic. I cleaned up and sold the TR-7 and RV-7 to a good friend that I wanted to introduce to Drake (who now has four or five TR-7s, I forget exactly) for basically what I had in the whole package less the L-7. The L-7 from this estate made it's way to me after the original purchaser found out that it had a bad tube (unsoldered filament). So I ended up with the L-7, PS-7, DL-1000, and 7077 for less than what you might pay for a basket case, stripped TR-7 at a hamfest.The tube worked after I soldered the filament pin, and I mixed and matched the tubes with a set of pulls from another friend's Henry that also had one unsoldered filament.

My single-owner R-7A was literally a garage sale find by a fellow ham who knew I was into Drake. It was offered to me for a price that, shall we say, I could not afford to pass up.

A few months back David, KD4E, offered me a fixer-upper TR-7 at a fair price. I took a chance on this private sale, knowing David from previous internet interactions, and got a fully loaded rig in decent physical shape that just needs a little work. It will become my spare.

So yes, the deals are out there. I saw good deals often at hamfests around here until I decided that I wanted to pick up a spare. Now that I have a spare, I will probably start seeing them again.

73

-Jim
NU0C

On Tue, 11 Mar 2014 11:07:24 -0400, Bill wrote:

>Finally something I may contribute to....:)
>
>I purchased a pretty complete TR-7 setup almost a year ago.
>And thanks again to the gang on here for the HELP!
>
>As a result, I have been watching prices on a regular basis.
>They are everywhere from $500 up to $1000 for a working TR7 alone, no PS or other peripherals.
>
>It appears that a working TR7 is worth more broken up into individual boards than as a complete unit. I think this is driving the price higher and higher. The TR7 is unique in that "motherboard" construction so it lends itself to being parted-out. Any other opinions on this?
>
>Having said that, I got mine for $350 from a fellow club member.

>I got everything except a speaker.
>PS, VFO, Electronic Keyer, Speech Processor, Mic.
>I love this radio.
>
>Morale of the story is, keep looking and good luck
>
>73
>Bill
>W4WCS
>formerly N2VIL

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19378. Re: [DrakeRadio] Re-Calibration R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 02:25:16 UTC
From: Richard Knoppow
Topic: 19344 Message: 19378

----- Original Message -----
From: <k6ctw@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 11, 2014 2:57 AM
Subject: Re: [DrakeRadio] Re-Calibration R-4A

> Gary,
>
> Thanks! Will do. 73 - Ken, K6CTW

I have had the same thing happen but had a much larger error. During cleaning I managed to get the gears out of synch. If you understand what has happened its not hard to fix. Another problem is if the stop pin gets sticky. The dial can just keep turning. The stop pin can stick because the lubricant has turned to glue. It can be cleaned with alcohol or naphtha and a drop of light oil put on it. Once you get the gears and the rest clean the VFO is very smooth. While the gears can get out of synch its easy to fix and you really have not broken anything.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19379. Help With MSR-2 Repair

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 01:05:01 UTC
From: <swradioman@...>
Topic: 19379 Message: 19379

I wondered if anyone is familiar with a tech who is willing and capable of working on the MSR-2 receiver. It is a commercial receiver from the late 70's and is suffering from low sensitivity in the LF and MW ranges. I suspect that it may be the connectors since they are the RCA variety, but wondered if there is a place that it can be shipped to be looked at? John Kriner, Jeff Covelli, and Ron Baker have been contacted and they are not interested in servicing the unit. Full schematics in the original manual are available. Any thoughts or any help is greatly appreciated! Thanks!

Randy

19380. TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 03:47:32 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19380

Hi All,

Any and all help appreciated...

Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing disconnected as yet).

Did not get past step 1. Which is to tune to radio as per normal to get all the adjustments into the ball-park.

Selected 21Mhz to make life easy on my first try.

Found that when I try advance the XMTR GAIN control to move the plate current meter up-scale slightly. As per the tuning instructions in the manual. Nothing happens. The plate meter resolutely stays at the .1 idle current setting.

Any suggestions for where I should start looking?

73, Steve
VK2SJA

19381. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 13:34:18 UTC
From: Garey Barrell
Topic: 19344 Message: 19381

Hi Steve -

Well, at least the receiver works, right?

Assuming the receiver DOES work, there are very few places to go wrong.

First, the SIDEBAND switch MUST be in the '-x' position. Then switch the MODE switch to 'x-CW'
and increase the XMTR GAIN for an increase in PLATE current. If no increase, the first thing to
check is the '-x' relay on the back panel in the CO area. This relay switches a small capacitor
in series with the CO crystal, raising it's frequency into the passband of the '-x' sideband
filter. If that relay does NOT pull in, no shift, no carrier! You should be able to hear or
'feel' it click in when then MODE switch is set to the 'x-CW' position.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
> Any and all help appreciated...
>
> Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing
> disconnected as yet).
>
> Did not get past step 1. Which is to tune to radio as per normal to get
> all the adjustments into the ball-park.
>
> Selected 21Mhz to make life easy on my first try.
>
> Found that when I try advance the XMTR GAIN control to move the plate
> current meter up-scale slightly. As per the tuning instructions in the
> manual. Nothing happens. The plate meter resolutely stays at the .1 idle
> current setting.
>
> Any suggestions for where I should start looking?
>
> 73, Steve
> VK2SJA

>
>

19382. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 13:34:32 UTC
From: Garey Barrell
Topic: 19344 Message: 19382

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
> Any and all help appreciated...
>
> Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing
> disconnected as yet).
>
> Did not get past step 1. Which is to tune to radio as per normal to get
> all the adjustments into the ball-park.
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> current meter up-scale slightly. As per the tuning instructions in the
> manual. Nothing happens. The plate meter resolutely stays at the .1 idle
> current setting.
>
> Any suggestions for where I should start looking?
>
> 73, Steve
> VK2SJA
>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

19383. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 14:02:55 UTC
From: Al Parker
Topic: 19344 Message: 19383

Hi Garey, Steve. et al,
I think you missed one thing, that's bit me more than once --
If a key is plugged into the key jack, it MUST be shorted.
73,
Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 3/12/2014 9:34 AM, Garey Barrell wrote:
> Hi Steve -
>
> Well, at least the receiver works, right?
>
> Assuming the receiver DOES work, there are very few places to go wrong.
>
> First, the SIDEBAND switch MUST be in the '-x' position. Then switch the
> MODE switch to 'x-CW'
> and increase the XMTR GAIN for an increase in PLATE current. If no
> increase, the first thing to
> check is the '-x' relay on the back panel in the CO area. This relay
> switches a small capacitor
> in series with the CO crystal, raising it's frequency into the passband
> of the '-x' sideband
> filter. If that relay does NOT pull in, no shift, no carrier! You should
> be able to hear or
> 'feel' it click in when then MODE switch is set to the 'x-CW' position.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve VK2SJA wrote:
> > Hi All,
> >
> > Any and all help appreciated...
> >
> > Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing
> > disconnected as yet).

> >
> > Did not get past step 1. Which is to tune to radio as per normal to get
> > all the adjustments into the ball-park.
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> > Selected 21Mhz to make life easy on my first try.
> >
> > Found that when I try advance the XMTR GAIN control to move the plate
> > current meter up-scale slightly. As per the tuning instructions in the
> > manual. Nothing happens. The plate meter resolutely stays at the .1 idle
> > current setting.
> >
> > Any suggestions for where I should start looking?
> >
> > 73, Steve
> > VK2SJA
> >
> >
>
>

19384. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 14:15:07 UTC
From: Garey Barrell
Topic: 19344 Message: 19384

Al -

YIKES! I always forget that, the T-4X(any) shorts the key in TUNE!

Hope that's it. Thanks Al.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Al Parker wrote:
> Hi Garey, Steve. et al,
> I think you missed one thing, that's bit me more than once --
> If a key is plugged into the key jack, it MUST be shorted.
> 73,
> Al, W8UT
> www.boatanchors.org
> www.hammarlund.info
>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 3/12/2014 9:34 AM, Garey Barrell wrote:
>> Hi Steve -
>>
>> Well, at least the receiver works, right?
>>
>> Assuming the receiver DOES work, there are very few places to go wrong.
>>
>> First, the SIDEBAND switch MUST be in the '-x' position. Then switch the
>> MODE switch to 'x-CW'
>> and increase the XMTR GAIN for an increase in PLATE current. If no
>> increase, the first thing to
>> check is the '-x' relay on the back panel in the CO area. This relay
>> switches a small capacitor
>> in series with the CO crystal, raising it's frequency into the passband
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>> be able to hear or
>> 'feel' it click in when then MODE switch is set to the 'x-CW' position.
>>
>> 73, Garey - K4OAH

>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Steve VK2SJA wrote:
>> > Hi All,
>> >
>> > Any and all help appreciated...
>> >
>> > Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing
>> > disconnected as yet).
>> >
>> > Did not get past step 1. Which is to tune to radio as per normal to get
>> > all the adjustments into the ball-park.
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>> > manual. Nothing happens. The plate meter resolutely stays at the .1 idle
>> > current setting.
>> >
>> > Any suggestions for where I should start looking?
>> >
>> > 73, Steve
>> > VK2SJA
>> >
>>

19385. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 14:20:13 UTC
From: Steve Toth
Topic: 19344 Message: 19385

This may be too simplistic, and you have probably already done this, but.....
I was doing the initial tune up on 15 meters the other day when the drive plate current on my T4XB suddenly dropped to a fixed level - nonadjustable. I knew the 12BY7 driver tube was good as I had recently replaced it. I decided to start over, but before I did I ran the bandswitch through several positions. The rig tuned up normally. Time to get out the DeOxit.

Just a thought.....

-- Steve

"Technically........the glass is ALWAYS full."

On Wednesday, March 12, 2014 7:02 AM, Al Parker <anchor@...> wrote:

Hi Garey, Steve. et al,
    I think you missed one thing, that's bit me more than once --
    If a key is plugged into the key jack, it MUST be shorted.
73,
Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 3/12/2014 9:34 AM, Garey Barrell wrote:
> Hi Steve -
>
> Well, at least the receiver works, right?
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> First, the SIDEBAND switch MUST be in the '-x' position. Then switch the
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> and increase the XMTR GAIN for an increase in PLATE current. If no
> increase, the first thing to
> check is the '-x' relay on the back panel in the CO area. This relay
> switches a small capacitor
> in series with the CO crystal, raising it's frequency into the passband
> of the '-x' sideband
> filter. If that relay does NOT pull in, no shift, no carrier! You should
> be able to hear or
> 'feel' it click in when then MODE switch is set to the 'x-CW' position.
>
> 73, Garey - K4OAH

> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> <www.k4oah.com>
>
> Steve VK2SJA wrote:
> > Hi All,
> >
> > Any and all help appreciated...
> >
> > Setup test bench for neutralization (Cold Screen-Grid procedure. Nothing
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> >
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> > all the adjustments into the ball-park.
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> > Found that when I try advance the XMTR GAIN control to move the plate
> > current meter up-scale slightly. As per the tuning instructions in the
> > manual. Nothing happens. The plate meter resolutely stays at the .1 idle
> > current setting.
> >
> > Any suggestions for where I should start looking?
> >
> > 73, Steve
> > VK2SJA
> >
> >
>
>

Yahoo Groups Links

https://info.yahoo.com/legal/us/yahoo/utos/terms/

19386. Re: [DrakeRadio] R7A AGC Problem Back

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 17:34:08 UTC
From: <w7apm@...>
Topic: 19306 Message: 19386

I did get the original R7 up and running fine again. It had a bad spot on the +5v trace on the motherboard. And the R7A Intermittent is behaving too...

--- w7apm@mtaonline.net wrote:

From: <w7apm@mtaonline.net>
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem Back
Date: Fri, 7 Mar 2014 21:23:22 -0800

I do have another R7 I can use to swap boards with. I did try swapping the IF/Audio board with no luck. I do appreciate the feedback.

--- jshorney@inebraska.com wrote:

From: "Jim Shorney" <jshorney@inebraska.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] R7A AGC Problem Back
Date: Fri, 07 Mar 2014 22:58:44 -0600

Check the Molex pins for cracked solder on the botton side of the parent board.
Also check the top side, I had one that actually had a huge blob of solder on
it that deformed the female contact. Also check soldering on the IF/Audio board
under magnification and good lighting. It might be a good idea to check
clearance between components and the connector bodies on the IF/Audio board.
I've had it happen that a component is bent the wrong way and will short to the
male pin portruding from the rear of the female socket.

73

-Jim
NU0C

On Fri, 7 Mar 2014 20:49:06 -0800, w7apm@mtaonline.net wrote:

>Let it play for a couple hours and all of a sudden the problem returned. Power Supply seems to be awful warm...

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19387. Re: [Drakelist] What have I done now?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 17:40:18 UTC
From: Garey Barrell
Topic: 19387 Message: 19387

Damien -

More likely, the fault is in the 'slow start'. That's just asking for trouble. These radios are NOT designed to be run with any less than 120 VAC +/- 10%. Or 240 VAC +/- 10% in your case. Whoever started that &%$# should be shot! If you just MUST play that game, start the power supply with NO load, but NEVER run a piece of electronic gear at less than 10% below it's
expected voltage.

Hard to say what might have been fried. Smoke indicates a damaged component, that may or may
not be fatal. The area overheated 'may' indicate that one PA tube started to conduct before the
others, and without proper cutoff bias may have saturated. That tube is probably toast, and/or
the Cathode resistor or RF chokes in that area.

AGAIN.... NEVER run a Drake transmitter with low line voltage. Just one disastrous mode is the
result of insufficient bias voltage to cut off the PA tubes -AND- the relay tube, causing the
relay to pull in, resulting in what you probably experienced.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Damien Mannix wrote:
> Hi all,
>
> Still waiting for better weather to put up an antenna but then ready to go with my TR4/AC4
> which are fine into a dummy load, or at least they were!
>
> Bought a, supposedly good, AC4 as a spare. Decided to power it up gradually with the TR4 as a
> load. Two hours at 50v, two at 80v, two at 110v, two at 140v. No problems and a fan on the
> rear behind the PA begins to run at this voltage. Then, ten minutes at 170v and 'wow' what is
> that smell? I thought it was my shack heater.
>
> No it was the TR4. The top, above the forward most PA tube, was unbelievably hot.

Switched
> off immediately of course.
>
> Can't spot anything untoward in the PA compartment so after a complete cool down I took
it
> slowly up to 230v with my usual AC4. Not done a full test but it seems perfectly happy
again,
> heat and smell wise, after 30 minutes at 230v.
>
> Might I have ruined anything and, presumably, the fault is in the AC4.
>
> Thanks in advance for any thoughts.
>
> 73
>
> Damien G3XER
>

19388. RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 17:56:04 UTC
From: <rochep@...>
Topic: 19315 Message: 19388

My 6EH5 audio amp tube is dead, another is on its way. I have replaced filter caps and have been measuring voltages using a DMM (NOT a VTVM). All voltages are good (within 10%) EXCEPT on one of the grids of V3, the 12BE6 2nd mixer/xtal oscillator. Instead of reading -11 volts, I am reading NOTHING (well, about – 14 mV). I THINK the 2nd mixer and xtal oscillator stage is working, I can see S meter move as I tune across band and as I turn on xtal calibrator.
I know this was measured with a DMM and not a VTVM, but is this something I should be concerned about BEFORE I plug in my new 6EH5 audio tube? Don’t wanna blow a new 6EH5, but I have no reason to believe (other than the crazy voltage reading) that V3 is not working properly.

paul

19389. Re: [DrakeRadio] RE: C90A. Where is it?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 18:25:29 UTC
From: Garey Barrell
Topic: 19315 Message: 19389

Paul -

Nope, exactly WHY you use a VTVM.!! The DMM probe, lead, and your hand all conspire to kill the
oscillator at this point. Obviously it's oscillating, or you wouldn't hear anything from the
receiver.

The VTVM has a 1M resistor at the probe tip to isolate all those nasty loads, and the
distributed capacity and inductance of the shielded wire lead further isolate the meter from the
RF. You can get an 'indication' by wrapping one lead of a 1M (or so) resistor around the DMM
probe tip and probe with the other lead.

As I said earlier, the 6EH5 is a 'hot' tube in normal operation. This can result in capacitor
and resistor degradation, compounded by additional current caused by that degradation. Tube
sockets and pins are subject to oxidation at a higher rate than 'normal', and the sockets can
actually lose their 'temper' (become 'non-springy' over time. This is why the tube 'feels
loose' and gets noisy. Socket replacement is a good idea, with a quality ceramic type.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
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> been measuring voltages using a DMM (NOT a VTVM). All voltages are good (within 10%) EXCEPT on
> one of the grids of V3, the 12BE6 2nd mixer/xtal oscillator. Instead of reading -11 volts, I
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> working, I can see S meter move as I tune across band and as I turn on xtal calibrator.
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> concerned about BEFORE I plug in my new 6EH5 audio tube? Don’t wanna blow a new 6EH5, but

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> have no reason to believe (other than the crazy voltage reading) that V3 is not working properly.
>
>

19390. Sub 39.1 MHz crystal for 39.6 MHz crystal in R4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 20:06:39 UTC
From: <rochep@...>
Topic: 19390 Message: 19390

If I get a 39.1 MHz crystal for the 28.0-28.5 10 meter CW band can I simply remove the existing 39.6 MHz crystal (for 28.5-29.0 MHz) and put the new one in its place (i.e. do NOT put the 28.0 MHz crystal in an accessory slot on the back but in the crystal 39.6 crystal slot on the chassis)? Would this require "tweaking" of the coils? Or is this a bad idea? I have no intention of ever listening to 10 meter SSB.

paul

19391. Re: [DrakeRadio] Sub 39.1 MHz crystal for 39.6 MHz crystal in R4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-12 20:10:41 UTC
From: Garey Barrell
Topic: 19390 Message: 19391

Paul -

Not a problem. Just align the 10 MTR position at 28.3 MHz or so.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
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> existing 39.6 MHz crystal (for 28.5-29.0 MHz) and put the new one in its place (i.e. do
NOT
> put the 28.0 MHz crystal in an accessory slot on the back but in the crystal 39.6 crystal
slot
> on the chassis)? Would this require "tweaking" of the coils? Or is this a bad idea? I
have no
> intention of ever listening to 10 meter SSB.
>
> paul

19392. MANUAL R8B for sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 00:13:10 UTC
From: jh7hc@juno.com
Topic: 19392 Message: 19392

I have a very nice manual copy for the R8B receiver for sale. One on eBay now for $17.99 with free shipping. That one looks very similar to mine. No marks, torn, or missing pages. Spiral bound and printed on both sides with no bleed through. My price is $11.50 shipped.
73, Joe, 76123

_____
Fast-Growing Industry
A New Player In The Booming Bottled Water Market.
http://thirdpartyoffers.juno.com/TGL3131/5320f86cde0ad786c419cst02duc

19393. T4XC & R4C Again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 01:55:07 UTC
From: <ko4bg1@...>
Topic: 19393 Message: 19393

Hi Guys and Ladies, I guess there are some that put up with a bunch of Drake Nuts as my wife calls me (sometimes) and we won't go into what she calls me at others. I had a problem with this before and emailed Garey direct and he put me on the right path it was CR19 in the T4XC, I changed it out and it has worked really well ever since. But the plot thickens I can and do use it most nights on 3.643, I try to switch rigs regularly. It will work all night with no problems UNTIL I turn on the L4B then it will work around 30 min. and stop transmitting just like before.I run it with the R4C controlling and also with the T4XC it does the same no matter how its configured,I thought it could be the relays in the amp. so tonight I put another L4B in line and it did the exact same thing, it would only put out a watt or two, so by that I don't think it could be in the amp relays. The C line is really stable, stays where you put it without moving around. I'm dumb as a rock on these things just smart enough to own a bunch of Drakes.
Thanks
Woody "KO4BG"

19394. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 02:15:26 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19394

Morning All,

Thanks for all the replies!

Answers to questions:-

1. Yes, the transceiver/receiver side switch is set forward in the transceiver position.
2. The receiver works. It hears a 1uV marker on 7040 MHz from a Elecraft XG2 signal generator no problem at all. Re-checked this again today. Previously I grabbed a 5 watt QRP kit radio I had built (MST400) and using it into a dummy load across the room could listen to myself. Recovered audio reasonable.
3. No key plugged into the key jack. Double checked wiring on jack. Looked a little "odd" with three wires all to the same pin. But it checks out and is applying required earth with plug removed.
4. Had previously tried a couple of different bands other than 21. Today I stuck with experimenting on 7. No difference. If anything the rig has been hit with too much de-oxit! And man is that stuff EXPENSIVE over here!

and...

(Garey hits the problem on the head with Thor's Hammer - Again! :-)

5. The K2 Carrier Oscillator Shift relay is intermittently faulty!! About 90% of the time it fails to throw in properly. Looks like this is not a new fault as there are lots of scratches on the armature where someone previous has been poking it with what looks like the tip of metal screw driver.

However...

Even when it does throw in properly (assisted) I still have the same fault symptoms. :-(
So I probably have more than one fault.

Anyway first things first. Fix the obvious problem and then deal with what remains.

Couple of questions for those that know about this K2 relay;-

On the Earth side of the armature (the non contact side) there appears to be a earth solder tag with nothing connected to it or perhaps it may even be an adjustment lever??? It is held to the frame of the relay at the same point as the armature connection by a tiny brass bolt and nut. This arrangement is loose. Which allows the solder tag to rotate up and down through about 15 degrees. So can we confirm that this is indeed just a earth point solder tag and that it should NOT be loose and that I should

tighten said nut and bolt?

Not that I can see that this will fix my intermittent relay or my fault...

Next question. Any general tips for repair or service of this relay which does not want to throw in? Or should I just replace it?

Thanks!

73, Steve.

19395. Drake Manuals - K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 03:13:12 UTC
From: <k6ctw@...>
Topic: 19395 Message: 19395

All - I'm sold! The K4OAH manuals on CD came today and I've already found the differences between what I "thought" was there and what is supposed to be based on the differences in the R-4A versions. I can't recommend this enough.

73 - Ken K6CTW

19396. Re: [DrakeRadio] Drake Manuals - K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 03:16:56 UTC
From: Don Cunningham
Topic: 19395 Message: 19396

It's MUCH more than just manuals on the CD, Ken. Keep looking, the pictures and procedures are VERY valuable as you go. We tell folks, but until you actually see the work, it's hard to believe what you get!!!!
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4336 / Virus Database: 3722/7187 - Release Date: 03/12/14

19397. Re: Drake Manuals - K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 03:35:03 UTC
From: <rochep@...>
Topic: 19395 Message: 19397

What is most amazing is the RESOLUTION of the pictures of each and every component!! As much a work of art as it is a practical manual.

paul

19398. Re: [DrakeRadio] T4XC & R4C Again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 03:53:51 UTC
From: Richard Knoppow
Topic: 19393 Message: 19398

----- Original Message -----
From: <ko4bg1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, March 12, 2014 6:55 PM
Subject: [DrakeRadio] T4XC & R4C Again

> Hi Guys and Ladies, I guess there are some that put up
> with a bunch of Drake Nuts as my wife calls me (sometimes)
> and we won't go into what she calls me at others. I had a
> problem with this before and emailed Garey direct and he
> put me on the right path it was CR19 in the T4XC, I
> changed it out and it has worked really well ever since.
> But the plot thickens I can and do use it most nights on
> 3.643, I try to switch rigs regularly. It will work all
> night with no problems UNTIL I turn on the L4B then it
> will work around 30 min. and stop transmitting just like
> before.I run it with the R4C controlling and also with the
> T4XC it does the same no matter how its configured,I
> thought it could be the relays in the amp. so tonight I
> put another L4B in line and it did the exact same thing,
> it would only put out a watt or two, so by that I don't
> think it could be in the amp relays. The C line is really
> stable, stays where you put it without moving around. I'm
> dumb as a rock on these things just smart enough to own a
> bunch of Drakes.
> Thanks
> Woody "KO4BG"
>
Just to clarify, when you say a watt or so output is
that from the final amp or the exciter? If the final what
sort of readings do you get from the exciter? What happens
if you connect the exciter directly to an antenna or dummy
load after the combination quits?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19399. Re: [DrakeRadio] Another TR-4 Question ...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 04:02:10 UTC
From: Paul Pollock
Topic: 1986 Message: 19399

Garey,

Somebody has hijacked my ID to ask you questions. I do have a TR-4; but I have not asked you question for a couple of years, and I never performed any diagnostics. I instead sent off my radio to a recognized tech.. The individual also has hijacked my call sign for these messages. He has my personal ire, but I dunno what to do about it.

-Paul Pollock (the real one)
KD7BWB

On Mar 4, 2009, at 4:44 PM, Garey Barrell <k4oah@...> wrote:

> Paul -
>
> Yep, there are TWO R76s in "some" TR-4s.
>
> You might want to make sure you have the correct schematic before you
> tear out too much hair, there were eight (8) versions, and some of the
> changes were in the S-Meter circuitry.
>
> I suggested V15, because V15 and V11 combined plate currents are
> balanced in the S-Meter bridge against the plate current of V17 in most
> units. I was just guessing based on your "pegged S-Meter" comment.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 4-B, C-Line & TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Paul Pollock wrote:
> > To Garey K4OAH,
> >
> > I have checked and substituted the V15, and it's good. R53 looks like
> > it is attached to T11 (r53-1.5kohm) and R76 causes some confusions as
> > there appears to be two(2) R76 resistors. One is a 100-ohm attached to
> > the balanced modulator diode bridge (d1-d4), while the other is
> > attached (thru R51) to V11 and is 1.5-kohm.
> >
> > I assume you mean the R76 at the balanced modulator?
> >
> > Sorry this is taking a while, but I'm a working guy. Plus, I haven't
> > read a tube schematic in 30-years+ <grin>!
> >
> > -Paul Pollock
> > KD7BWB

> >
> >
> > On Mar 3, 2009, at 12:01 PM, Garey Barrell wrote:
> >
> >
> >> Paul -
> >>
> >> Check to see if V15 is lit. If it is, check voltages on this stage.
> >> Check R53 and R76.
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 4-B, C-Line & TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> kd7bwb wrote:
> >>
> >>> Hello folks, I'm a new Drake TR-4 owner, so bear with me. I
> >>>
> >> acquired a working TR-4 about
> >>
> >>> 10 days ago, and it worked fine for about 2 days.
> >>>
> >>> Then it stopped tuning up in transmit (but bias current is read on
> >>>
> >> the plate-current meter),
> >>
> >>> and the S-Meter pins to the right, whenever the transceiver is
> >>>
> >> placed in tuneup CWx mode.
> >>
> >>> Advice I received so far, range from sticky relay and tube-pin-
> >>>
> >> connections, to one of the
> >>
> >>> dual-triodes has gone unbalanced. I think maybe V18 is one-side
> >>>
> >> dead, but that's just a
> >>
> >>> guess. Am I all wet?
> >>>
> >>> Thanks all!
> >>>
> >>> -Paul Pollock
> >>> KD7BWB
> >>>
>
>

19400. Re: [DrakeRadio] Drake Manuals - K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 04:28:23 UTC
From: William Houghton
Topic: 19395 Message: 19400

I always wondered if there is a troubleshooting guide almost down to the component level, like having Garey on CD.

From: Don Cunningham <donc@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, March 12, 2014 8:16 PM
Subject: Re: [DrakeRadio] Drake Manuals - K4OAH

☐

It's MUCH more than just manuals on the CD,
Ken. Keep looking, the pictures and procedures are VERY valuable as you go. We tell folks, but until you actually see the work, it's hard to believe what you get!!!!
73,
Don, WB5HAK

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4336 / Virus Database: 3722/7187 - Release Date: 03/12/14

19401. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 05:03:28 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19401

Update:

Convinced that I was looking at a loose earth tag with nothing soldered to it. I have now:-

Tightened the screws holding the relay to the chassis. Which looks like the normal (and only) earth point for the relay switching. Tightened the loose brass nut. Strapped a wire jumper between earth and the previously empty tag. Now it's not reliant on the chassis earth for switching.

Checked path to XMIT K from top (diagrammatically) of K2 coil and found 16K. Circuit shows R79 10K plus R80 4.7K for 14.7K ~= 16K looks good to me.

Measured +150Vdc supply to K2 coil as 143Vdc.

Measured voltage across coil when energized as 9.69Vdc or ~= 10Vdc. What voltage should this coil be driven with?

After all this the relay is still intermittent. But it energizes properly about 80% of the time. Much improved but not perfect. If it gets stuck and I free it with tip of plastic adjustment tool then it seems to come good for a while. Pitted contacts binding the armature? Clean them?

But in all this the original fault remains.

The plate current resolutely sits at .1 idle and refuses to move upwards when the XMTR GAIN is increased even when the relay properly engages.

Off the contemplate the circuit some more.

73, Steve.

> Morning All,
>
> Thanks for all the replies!
>
> Answers to questions:-
>
> 1. Yes, the transceiver/receiver side switch is set forward in the
> transceiver position.
> 2. The receiver works. It hears a 1uV marker on 7040 MHz from a Elecraft
> XG2 signal generator no problem at all. Re-checked this again today.
> Previously I grabbed a 5 watt QRP kit radio I had built (MST400) and using
> it into a dummy load across the room could listen to myself. Recovered
> audio reasonable.
> 3. No key plugged into the key jack. Double checked wiring on jack. Looked
> a little "odd" with three wires all to the same pin. But it checks out and

> is applying required earth with plug removed.
> 4. Had previously tried a couple of different bands other than 21. Today I
> stuck with experimenting on 7. No difference. If anything the rig has been
> hit with too much de-oxit! And man is that stuff EXPENSIVE over here!
>
> and...
>
> (Garey hits the problem on the head with Thor's Hammer - Again! :-)
>
> 5. The K2 Carrier Oscillator Shift relay is intermittently faulty!! About
> 90% of the time it fails to throw in properly. Looks like this is not a
> new fault as there are lots of scratches on the armature where someone
> previous has been poking it with what looks like the tip of metal screw
> driver.
>
> However...
>
> Even when it does throw in properly (assisted) I still have the same fault
> symptoms. :-(
> So I probably have more than one fault.
>
> Anyway first things first. Fix the obvious problem and then deal with what
> remains.
>
> Couple of questions for those that know about this K2 relay;-
>
> On the Earth side of the armature (the non contact side) there appears to
> be a earth solder tag with nothing connected to it or perhaps it may even
> be an adjustment lever??? It is held to the frame of the relay at the same
> point as the armature connection by a tiny brass bolt and nut. This
> arrangement is loose. Which allows the solder tag to rotate up and down
> through about 15 degrees. So can we confirm that this is indeed just a
> earth point solder tag and that it should NOT be loose and that I should
> tighten said nut and bolt?
>
> Not that I can see that this will fix my intermittent relay or my fault...
>
> Next question. Any general tips for repair or service of this relay which
> does not want to throw in? Or should I just replace it?
>
> Thanks!
>
> 73, Steve.
>
>
>
>
>
>
>

19402. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 05:21:35 UTC
From: M K
Topic: 19344 Message: 19402

Are you SURE that the coil is not getting at least SOME voltage when it should not??
You may want to check the voltage across the relay coil when it "sticks".
I suspect that whatever drives the coil is not working correctly, rather than the relay being at fault.

On Thu, Mar 13, 2014 at 1:03 AM, Steve VK2SJA <vk2sja@...> wrote:

>
>
> Update:
>
> Convinced that I was looking at a loose earth tag with nothing soldered to
> it. I have now:-
>
> Tightened the screws holding the relay to the chassis. Which looks like
> the normal (and only) earth point for the relay switching. Tightened the
> loose brass nut. Strapped a wire jumper between earth and the previously
> empty tag. Now it's not reliant on the chassis earth for switching.
>
> Checked path to XMIT K from top (diagrammatically) of K2 coil and found
> 16K. Circuit shows R79 10K plus R80 4.7K for 14.7K ~= 16K looks good to
> me.
>
> Measured +150Vdc supply to K2 coil as 143Vdc.
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> Measured voltage across coil when energized as 9.69Vdc or ~= 10Vdc. What
> voltage should this coil be driven with?
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> After all this the relay is still intermittent. But it energizes properly
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> I free it with tip of plastic adjustment tool then it seems to come good
> for a while. Pitted contacts binding the armature? Clean them?
>
> But in all this the original fault remains.
>
> The plate current resolutely sits at .1 idle and refuses to move upwards
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> Off the contemplate the circuit some more.
>
> 73, Steve.
>
> > Morning All,
> >

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> >
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> > transceiver position.
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> > Previously I grabbed a 5 watt QRP kit radio I had built (MST400) and
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> > it into a dummy load across the room could listen to myself. Recovered
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> > 3. No key plugged into the key jack. Double checked wiring on jack.
> Looked
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> > is applying required earth with plug removed.
> > 4. Had previously tried a couple of different bands other than 21. Today
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> > stuck with experimenting on 7. No difference. If anything the rig has
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> > and...
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> > 5. The K2 Carrier Oscillator Shift relay is intermittently faulty!! About
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> fault...
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> > Next question. Any general tips for repair or service of this relay which
> > does not want to throw in? Or should I just replace it?
> >
> > Thanks!
> >
> > 73, Steve.
> >
> >
> >
> >
> >
> >
> >
>
>
>

19403. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 14:26:39 UTC
From: Garey Barrell
Topic: 19344 Message: 19403

Steve -

Couple of things......

1. Is the relay 'sticking' open or closed??

2. The relay is a 12VDC coil, 1600 ohms. So your 16k is right on.

3. Depending upon the answer to 1 above, the relay should 'drop out' when the MODE switch is in
CW or AM position. This is accomplished by a set of contacts on the back of the first switch
wafer on the MODE switch, and 'opens' the relay by shorting the coil terminals. Poor contacts
here could fail to short the coil, leaving the relay pulled in. Another possibility is that the
relay armature is physically touching the magnet pole. If this occurs, the magnet may have
enough residual magnetism to 'hold' the armature after power is removed. The 'adjustment' on
the back of the armature is there to limit its travel.

A _guess_ from some 10,000 miles away, what is the actual frequency of the Carrier Oscillator
with the relay open and closed? Since it's intermittent, perhaps it was 'open' when you set the
CO frequency to ~9.000 MHz rather than 'closed' as it should have been. Then when the relay is
intentionally closed for CW, the frequency will shift DOWN 1 kHz rather than up, taking it out
of the -x filter passband.

So listen to the CO at 9 MHz on a separate receiver (or a counter if available) and make sure
that the SSB mode frequency is close to 9 MHz, and the CW mode frequency is ~ 1 kHz HIGHER.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Update:
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> Measured +150Vdc supply to K2 coil as 143Vdc.
>
> Measured voltage across coil when energized as 9.69Vdc or ~= 10Vdc. What
> voltage should this coil be driven with?
>
> After all this the relay is still intermittent. But it energizes properly
> about 80% of the time. Much improved but not perfect. If it gets stuck and
> I free it with tip of plastic adjustment tool then it seems to come good
> for a while. Pitted contacts binding the armature? Clean them?
>
> But in all this the original fault remains.
>
> The plate current resolutely sits at .1 idle and refuses to move upwards
> when the XMTR GAIN is increased even when the relay properly engages.
>
> Off the contemplate the circuit some more.
>
> 73, Steve.
>
>
>> Morning All,
>>
>> Thanks for all the replies!
>>
>> Answers to questions:-
>>
>> 1. Yes, the transceiver/receiver side switch is set forward in the
>> transceiver position.
>> 2. The receiver works. It hears a 1uV marker on 7040 MHz from a Elecraft
>> XG2 signal generator no problem at all. Re-checked this again today.
>> Previously I grabbed a 5 watt QRP kit radio I had built (MST400) and using
>> it into a dummy load across the room could listen to myself. Recovered
>> audio reasonable.
>> 3. No key plugged into the key jack. Double checked wiring on jack. Looked
>> a little "odd" with three wires all to the same pin. But it checks out and
>> is applying required earth with plug removed.
>> 4. Had previously tried a couple of different bands other than 21. Today I
>> stuck with experimenting on 7. No difference. If anything the rig has been
>> hit with too much de-oxit! And man is that stuff EXPENSIVE over here!
>>

>> and...
>>
>> (Garey hits the problem on the head with Thor's Hammer - Again! :-)
>>
>> 5. The K2 Carrier Oscillator Shift relay is intermittently faulty!! About
>> 90% of the time it fails to throw in properly. Looks like this is not a
>> new fault as there are lots of scratches on the armature where someone
>> previous has been poking it with what looks like the tip of metal screw
>> driver.
>>
>> However...
>>
>> Even when it does throw in properly (assisted) I still have the same fault
>> symptoms. :-(
>> So I probably have more than one fault.
>>
>> Anyway first things first. Fix the obvious problem and then deal with what
>> remains.
>>
>> Couple of questions for those that know about this K2 relay;-
>>
>> On the Earth side of the armature (the non contact side) there appears to
>> be a earth solder tag with nothing connected to it or perhaps it may even
>> be an adjustment lever??? It is held to the frame of the relay at the same
>> point as the armature connection by a tiny brass bolt and nut. This
>> arrangement is loose. Which allows the solder tag to rotate up and down
>> through about 15 degrees. So can we confirm that this is indeed just a
>> earth point solder tag and that it should NOT be loose and that I should
>> tighten said nut and bolt?
>>
>> Not that I can see that this will fix my intermittent relay or my fault...
>>
>> Next question. Any general tips for repair or service of this relay which
>> does not want to throw in? Or should I just replace it?
>>
>> Thanks!
>>
>> 73, Steve.
>>
>>
>>
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> ------------------------------------
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> Yahoo Groups Links
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19404. Re: [DrakeRadio] Another TR-4 Question ...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 18:53:32 UTC
From: Garey Barrell
Topic: 1986 Message: 19404

Paul -

That's a new one!! :-)

You DID notice the date on the messages below, right??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Paul Pollock wrote:
>
>
> Garey,
>
> Somebody has hijacked my ID to ask you questions. I do have a TR-4; but I have not asked you
> question for a couple of years, and I never performed any diagnostics. I instead sent off my
> radio to a recognized tech.. The individual also has hijacked my call sign for these messages.
> He has my personal ire, but I dunno what to do about it.
>
> -Paul Pollock (the real one)
> KD7BWB
>
> On Mar 4, 2009, at 4:44 PM, Garey Barrell <k4oah@... <mailto:k4oah@...>>
> wrote:
>
>> Paul -
>>
>> Yep, there are TWO R76s in "some" TR-4s.
>>
>> You might want to make sure you have the correct schematic before you
>> tear out too much hair, there were eight (8) versions, and some of the
>> changes were in the S-Meter circuitry.
>>
>> I suggested V15, because V15 and V11 combined plate currents are
>> balanced in the S-Meter bridge against the plate current of V17 in most
>> units. I was just guessing based on your "pegged S-Meter" comment.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA

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>> Paul Pollock wrote:
>> > To Garey K4OAH,
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>> > I have checked and substituted the V15, and it's good. R53 looks like
>> > it is attached to T11 (r53-1.5kohm) and R76 causes some confusions as
>> > there appears to be two(2) R76 resistors. One is a 100-ohm attached to
>> > the balanced modulator diode bridge (d1-d4), while the other is
>> > attached (thru R51) to V11 and is 1.5-kohm.
>> >
>> > I assume you mean the R76 at the balanced modulator?
>> >
>> > Sorry this is taking a while, but I'm a working guy. Plus, I haven't
>> > read a tube schematic in 30-years+ <grin>!
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>> > -Paul Pollock
>> > KD7BWB
>> >
>> >
>> > On Mar 3, 2009, at 12:01 PM, Garey Barrell wrote:
>> >
>> >
>> >> Paul -
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>> >> Check to see if V15 is lit. If it is, check voltages on this stage.
>> >> Check R53 and R76.
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>> >> kd7bwb wrote:
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>> >>> Hello folks, I'm a new Drake TR-4 owner, so bear with me. I
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>> >> acquired a working TR-4 about
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>> >>> 10 days ago, and it worked fine for about 2 days.
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>> >>> Then it stopped tuning up in transmit (but bias current is read on
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>> >> the plate-current meter),
>> >>
>> >>> and the S-Meter pins to the right, whenever the transceiver is
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>> >> placed in tuneup CWx mode.
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>> >>> Advice I received so far, range from sticky relay and tube-pin-
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>> >>> dual-triodes has gone unbalanced. I think maybe V18 is one-side
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>> >>> Thanks all!
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>> >>> -Paul Pollock
>> >>> KD7BWB
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>
>
>
>

19405. Re: [DrakeRadio] Another TR-4 Question ...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 19:07:38 UTC
From: Paul Pollock
Topic: 1986 Message: 19405

To Garey,

Yea, I did later (really ashamed <grin>).

Boy the mail system on these groups are getting really screwy. I'm being sent these messages as if they were new posts! Now how in heck is THAT happening?

I'm sorry about that!

-Paul Pollock
KD7BWB

On Mar 13, 2014, at 11:53 AM, Garey Barrell <k4oah@...> wrote:

> Paul -
>
> That's a new one!! :-)
>
> You DID notice the date on the messages below, right??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Paul Pollock wrote:
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> > Garey,
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> > Somebody has hijacked my ID to ask you questions. I do have a TR-4; but I have not asked you
> > question for a couple of years, and I never performed any diagnostics. I instead sent off my
> > radio to a recognized tech.. The individual also has hijacked my call sign for these messages.
> > He has my personal ire, but I dunno what to do about it.
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> > -Paul Pollock (the real one)
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> > On Mar 4, 2009, at 4:44 PM, Garey Barrell <k4oah@...<mailto:k4oah@...>>
> > wrote:
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> >> Yep, there are TWO R76s in "some" TR-4s.
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> >> > there appears to be two(2) R76 resistors. One is a 100-ohm attached to
> >> > the balanced modulator diode bridge (d1-d4), while the other is
> >> > attached (thru R51) to V11 and is 1.5-kohm.
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> >> > I assume you mean the R76 at the balanced modulator?
> >> >
> >> > Sorry this is taking a while, but I'm a working guy. Plus, I haven't
> >> > read a tube schematic in 30-years+ <grin>!
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> >> > -Paul Pollock
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> >> >
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> >> >>> Thanks all!
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> >> >>>
> >>
> >
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> >
>
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>

19406. Re: [DrakeRadio] Another TR-4 Question ...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-13 19:38:15 UTC
From: Garey Barrell
Topic: 1986 Message: 19406

Paul -

OK.. ;-)

I didn't get them, I think the servers must just burp every once in a while and find something
from _5 years_ ago and send it to 'somebody'.

It is easy to imagine your surprise at this one!

We'll survive, somehow..... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Paul Pollock wrote:
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> To Garey,
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> Yea, I did later (really ashamed <grin>).
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>> That's a new one!! :-)
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>> You DID notice the date on the messages below, right??
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>> >> > it is attached to T11 (r53-1.5kohm) and R76 causes some confusions as
>> >> > there appears to be two(2) R76 resistors. One is a 100-ohm attached to
>> >> > the balanced modulator diode bridge (d1-d4), while the other is
>> >> > attached (thru R51) to V11 and is 1.5-kohm.

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>> >> >>> Thanks all!
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>> >> >>> -Paul Pollock
>> >> >>> KD7BWB
>> >> >>>
>> >>
>>

19407. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-14 01:54:22 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19407

Hi Garey/All,

> Steve -
>
> Couple of things......
>
> 1. Is the relay 'sticking' open or closed??

Relay fails to close properly when energized. Sometimes it does not close at all. Other times it is only partially closed. By which I mean the contacts for the open position separate by a hairs breath but it fails to close the contacts on the other side for the closed or energized position.

It is like the voltage across the coil is insufficient to generate a decisive magnetic field to pull in the armature.

>
> 2. The relay is a 12VDC coil, 1600 ohms. So your 16k is right on.
>

Actually I'm pretty sure I was measuring the combined resistance for R79 10K plus R80 4.7K total 14.7K at 16K *without* the coil in series. This would mean that I am 1.3K too high in resistance for this path. I'm going to double check this in a minute. Along with what is happening to the voltage across the coil when it fails to close properly on energizing. This morning after over 30 minutes warm-up it appears to be behaving. But failed first thing when cold. Limited testing though.

> 3. Depending upon the answer to 1 above, the relay should 'drop out'...

Relay has no problem de-energizing or opening. It just fails to close reliably when energized.

> The 'adjustment' on the back of the armature is there to limit its travel.

I don't think my relay has this adjustment? Can't for the life of me see one. But maybe I don't know what I'm looking for.

>
> ...and make sure that the SSB mode frequency is close to 9 MHz, and the CW mode frequency is ~ 1 kHz HIGHER.
>
>

I have used a counter to set the CO frequency to *exactly* 9 Mhz, (as limited by my measurement capability :-) at 9,000.002 KHz. When the relay energizes properly 9,000.002 KHz becomes 9,000.962 Khz. So she is shifting UP in frequency some 960 Hz. Not quite the full 1 Khz.

Still no increase in plate current above the idle .1 point when the XMTR GAIN is adjusted upwards.

73, Steve

19408. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-14 02:14:45 UTC
From: Garey Barrell
Topic: 19344 Message: 19408

Steve -

OK.

Steve VK2SJA wrote:
> Hi Garey/All,
>
>> Steve -
>>
>> Couple of things......
>>
>> 1. Is the relay 'sticking' open or closed??
> Relay fails to close properly when energized. Sometimes it does not close
> at all. Other times it is only partially closed. By which I mean the
> contacts for the open position separate by a hairs breath but it fails to
> close the contacts on the other side for the closed or energized position.
>
> It is like the voltage across the coil is insufficient to generate a
> decisive magnetic field to pull in the armature.

It sounds like the relay IS starved. The 143 VDC is a little low, but... The ~10 VDC you measured across the relay when pulled in 'could' account for that, but it really should be sufficient. Kinda grasping at straws here, but check the back side of the front wafer on the
MODE switch for contamination. Any 'leakage' there would act as a resistor in parallel with the
relay.

>> 2. The relay is a 12VDC coil, 1600 ohms. So your 16k is right on.
>>
> Actually I'm pretty sure I was measuring the combined resistance for R79
> 10K plus R80 4.7K total 14.7K at 16K *without* the coil in series. This
> would mean that I am 1.3K too high in resistance for this path. I'm going
> to double check this in a minute. Along with what is happening to the
> voltage across the coil when it fails to close properly on energizing.
> This morning after over 30 minutes warm-up it appears to be behaving. But
> failed first thing when cold. Limited testing though.

OK.

>> 3. Depending upon the answer to 1 above, the relay should 'drop out'...
> Relay has no problem de-energizing or opening. It just fails to close
> reliably when energized.

Good.

>> The 'adjustment' on the back of the armature is there to limit its travel.
> I don't think my relay has this adjustment? Can't for the life of me see
> one. But maybe I don't know what I'm looking for.
I'm not sure, just looking at the photo in the CD. That type of relay usually has a 'finger'
that rests on top of the armature to limit the 'up-travel'. If it's bent UP, it could allow the
armature to get too far from the pole piece. There is no appreciable voltage on the contacts,
so if you can bend that 'finger' down a bit to reduce the travel it might help.

>> ...and make sure that the SSB mode frequency is close to 9 MHz, and the
> CW mode frequency is ~ 1 kHz HIGHER.
>>
> I have used a counter to set the CO frequency to *exactly* 9 Mhz, (as
> limited by my measurement capability :-) at 9,000.002 KHz. When the relay
> energizes properly 9,000.002 KHz becomes 9,000.962 Khz. So she is shifting
> UP in frequency some 960 Hz. Not quite the full 1 Khz.

OK. That's good, just checking!.

Still no increase in plate current above the idle .1 point when the XMTR GAIN is adjusted upwards. 73, Steve

Refresh control settings. SIDEBAND switch in '-x'. MODE switch in 'x-CW' Peak RF TUNE, PLATE
and LOAD controls for maximum received signal.

If you whistle into the mic on SSB do you get plate current??

If so, then measure the DC voltage on T14 (R76) in CW MODE. It should vary from 0 - 0.5 VDC as
the XMTR GAIN control is rotated clockwise. If no voltage here, check back through R74 (XMTR
GAIN control) and R75 to +150 _Regulated_ bus.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

19409. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-14 05:55:10 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19409

Hi Garey/All,

Another update.

> It sounds like the relay IS starved. The 143 VDC is a little low,
> but... The ~10 VDC you measured across the relay when pulled in 'could'
> account for that, but it really should be sufficient.

I think we are dealing with a combination of things that all make for a "Perfect Storm".

My relay winding when isolated only measures 985 ohms not 1.6K ohms. I'm missing 615 ohms.

My path from the relay to XMIT K is some 1.28K ohms too high. Which is nearly all in R79 which reads 11.08K instead of 10K (R80 is about 0.2K high which accounts for the rest).

My +150Vdc is low (+143Vdc) intentionally because I dropped the mains AC supply down to 221Vac (from 250Vac on wall outlet) to stop my AC3 PSU transformer from howling (saturation).

I did find that the contacts on the rear wafer Mode Switch were dirty. Inconceivable! And after all the indiscriminate aerial spraying of contact cleaner that I bombarded the rig with :-) Just goes to show that non-targeted contact cleaning is going to be hit and miss at best. Had about 4 Ohms on these contacts before iso-pro, Q-tip rub and some more contact cleaner. Now down to 0.05 Ohms and I've got about 0.04 Ohms in my test clip leads so I declare that as close to zero as I'm going to get.

In my most recent testing (limited) I've got 100% failure with 9.73Vdc across the coil when energized. Which is just enough to break contact with the NC terminal pair. Which does in fact put C84 and R141 between the crystal and ground. This raises the CO frequency 962Hz. But the Normally-Open contacts fail to close properly. They just don't make. So a switched ground signal to other parts of the circuit just isn't happening. I've not looked at the circuit long enough to try and understand what would happen with this grounding missing. But something is not going to work as it should. I'll have fun looking at this tonight.

> I'm not sure, just looking at the photo in the CD. That type of relay
> usually has a 'finger'...

No separate finger to stop upwards motion on this one. Just the contact strip of metal that runs along the top of the armature and back around to the side of the relay frame where it connects to the chassis of the relay for Earth potential under that brass nut I tightened yesterday. This

contact strip looks like it has been previously 'bent' out of shape around the rear of the armature. So this "may" serve as some sort of adjustment.

> Refresh control settings. SIDEBAND switch in '-x'. MODE switch in
> 'x-CW' Peak RF TUNE, PLATE and LOAD controls for maximum received signal.

Check (almost).

Peak RF Tune for max noise.
Sideband '-x'
Mode 'x-CW'

I'm on a dummy load and I can't hear any appreciable noise level adjusting PLATE and LOAD. So I had the LOAD control full CCW (zero position) as per the manuals tune up instructions. Not knowing what to do with the PLATE I had that set to full CCW (zero position) as well.

Even with the relay "hard jammed" in the energized position and the switches set as above there is no increase in plate current above .1 idle when the XMTR GAIN is moved upwards.

I have the nebulous beginnings of a sad theory. Perhaps a current a lot higher than normal propelled by a potential a fair bit greater than +150Vdc has passed through relay K2 coil and R79 10K via XMIT K to ground (XMIT K does switch to ground on TX right?). This current has internally melted some of K2's coil insulation. Shorting some of the windings internally. Same current cooked R79 from 10K to 11K. Combined they now make for a very 'weak' relay.

Could this have happened if she was connected to an AC3 or AC4 that let go of regulation/filtering on the +150Vdc perhaps? If so this probably does not bode well for the rest of the rig.

Anyway. Thinking my next step should be to replace R79 and see if that helps any.

73, Steve.

19410. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-14 06:24:49 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19410

Sorry, in previous post:-

"I can't hear any appreciable noise level adjusting PLATE and LOAD."

Should have read:-

"I can't hear any appreciable *change in* noise level adjusting PLATE and LOAD."

73, Steve

19411. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-14 14:30:37 UTC
From: Garey Barrell
Topic: 19344 Message: 19411

Steve -

Progress!

The n.o. contact MUST close for CW, it 'keys' the CO! Which is what generates the carrier.! The frequency shift you are seeing is typical.

I wouldn't worry too much about the coil resistance of the relay, YET! There have been several
different relays in that spot over time and it may be ok. I think you may be correct that the
problem is a combination of factors. If you can get the voltage across the relay to 11 VDC, and
it is STILL unreliable, then we need to talk about a new relay.

Meanwhile, that n.c. pair MUST close for CW. That point, Cathode of the CO, is grounded in SSB
via the second wafer of the MODE switch, on the front side. No ground, no CO, no CW! :-)

You don't mention if whistling in the mic produces output. Position of the PLATE and LOAD caps
isn't particularly critical for these tests, full CCW is fine.

I don't 'think' your diagnosis is correct. The +150 comes via a wirewound resistor from the +250 bus, so it is fairly reliable. The increase in the 10k resistor is not unusual just due to
age, and unless it's darkened or shows other signs of overheating, I wouldn't be concerned. It's slightly out of spec, but probably not THE problem. While you have your ohmmeter handy,
check R192 for value and condition. IF out of spec, replace with 27 ohm, 1/2W carbon comp. This is a 'fuse' to protect the wiring harness from overcurrent due to a short somewhere! What
does the +250 measure?

Yes, XMTR K is grounded to transmit. What is the voltage on T14 when set for CW as the XMTR GAIN is rotated over its range?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Garey/All,
>

> Another update.
>
>> It sounds like the relay IS starved. The 143 VDC is a little low,
>> but... The ~10 VDC you measured across the relay when pulled in 'could'
>> account for that, but it really should be sufficient.
> I think we are dealing with a combination of things that all make for a
> "Perfect Storm".
>
> My relay winding when isolated only measures 985 ohms not 1.6K ohms. I'm
> missing 615 ohms.
>
> My path from the relay to XMIT K is some 1.28K ohms too high. Which is
> nearly all in R79 which reads 11.08K instead of 10K (R80 is about 0.2K
> high which accounts for the rest).
>
> My +150Vdc is low (+143Vdc) intentionally because I dropped the mains AC
> supply down to 221Vac (from 250Vac on wall outlet) to stop my AC3 PSU
> transformer from howling (saturation).
>
> I did find that the contacts on the rear wafer Mode Switch were dirty.
> Inconceivable! And after all the indiscriminate aerial spraying of contact
> cleaner that I bombarded the rig with :-) Just goes to show that
> non-targeted contact cleaning is going to be hit and miss at best. Had
> about 4 Ohms on these contacts before iso-pro, Q-tip rub and some more
> contact cleaner. Now down to 0.05 Ohms and I've got about 0.04 Ohms in my
> test clip leads so I declare that as close to zero as I'm going to get.
>
> In my most recent testing (limited) I've got 100% failure with 9.73Vdc
> across the coil when energized. Which is just enough to break contact with
> the NC terminal pair. Which does in fact put C84 and R141 between the
> crystal and ground. This raises the CO frequency 962Hz. But the
> Normally-Open contacts fail to close properly. They just don't make. So a
> switched ground signal to other parts of the circuit just isn't happening.
> I've not looked at the circuit long enough to try and understand what
> would happen with this grounding missing. But something is not going to
> work as it should. I'll have fun looking at this tonight.
>
>> I'm not sure, just looking at the photo in the CD. That type of relay
>> usually has a 'finger'...
> No separate finger to stop upwards motion on this one. Just the contact
> strip of metal that runs along the top of the armature and back around to
> the side of the relay frame where it connects to the chassis of the relay
> for Earth potential under that brass nut I tightened yesterday. This
> contact strip looks like it has been previously 'bent' out of shape around
> the rear of the armature. So this "may" serve as some sort of adjustment.
>
>> Refresh control settings. SIDEBAND switch in '-x'. MODE switch in
>> 'x-CW' Peak RF TUNE, PLATE and LOAD controls for maximum received signal.
> Check (almost).
>

> Peak RF Tune for max noise.
> Sideband '-x'
> Mode 'x-CW'
>
> I'm on a dummy load and I can't hear any appreciable noise level adjusting
> PLATE and LOAD. So I had the LOAD control full CCW (zero position) as per
> the manuals tune up instructions. Not knowing what to do with the PLATE I
> had that set to full CCW (zero position) as well.
>
> Even with the relay "hard jammed" in the energized position and the
> switches set as above there is no increase in plate current above .1 idle
> when the XMTR GAIN is moved upwards.
>
> I have the nebulous beginnings of a sad theory. Perhaps a current a lot
> higher than normal propelled by a potential a fair bit greater than
> +150Vdc has passed through relay K2 coil and R79 10K via XMIT K to ground
> (XMIT K does switch to ground on TX right?). This current has internally
> melted some of K2's coil insulation. Shorting some of the windings
> internally. Same current cooked R79 from 10K to 11K. Combined they now
> make for a very 'weak' relay.
>
> Could this have happened if she was connected to an AC3 or AC4 that let go
> of regulation/filtering on the +150Vdc perhaps? If so this probably does
> not bode well for the rest of the rig.
>
> Anyway. Thinking my next step should be to replace R79 and see if that
> helps any.
>
> 73, Steve.
>
>

19412. Re: [DrakeRadio] Wanted: TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 01:18:00 UTC
From: William Houghton
Topic: 19303 Message: 19412

Hi Jeff,

Did you find your TR-4 project?

73,

Bill, WA6NEQ

From: "w8cq@..." <w8cq@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, March 7, 2014 5:46 PM
Subject: [DrakeRadio] Wanted: TR-4

Hello All,
I am looking for a TR-4 for a project. It does not have to be pretty or even work, just all of the parts there.

What have you?

Jeff W8CQ

19413. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 03:29:42 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19413

Afternoon Garey/All,

Nearly 2:00pm here. Lunchtime UTC +10 (+1 more for daylight savings).

First thing this morning I isolated the relay coil and started testing it with an adjustable bench power supply. Could not get it to reliably behave at 11 volts. So I pulled it out and started playing with it on the bench. I convinced myself that the problem with the relay is mechanical. It will pull-in perfectly once and then jam up for subsequent cycles. I made it much better by straightening the armature metallic contact strip that comes round the rear of the armature to the relay frame. But I could not make it behave 100%.

Given that the relay has been the source of annoyance for a previous owner. Judging by all the screwdriver scratch marks on the armature itself. I decided to replace it for the moment. So I've spent the morning grafting in a suitable +12vdc miniature relay on a small carrier board. I was able to deliberately keep all the lead dress and lengths the same so that a swap back to another genuine relay won't be hard.

Just going to break for lunch and then smoke test this new relay. Let you know what happens soon. I'm still expecting to have the same fault symptom because even when I held the relay in with a plastic adjustment tool it didn't work.

> You don't mention if whistling in the mic produces output.

I have not wired a microphone up yet. Be easier initially to inject a signal from an audio oscillator. What level should I use? I'll try and test this later today.

> I don't 'think' your diagnosis is correct.

Good! I didn't like my diagnosis anyway! <:-)

Thinking about it last night the 11K for a 10K 10% resistor is still in spec (just) so I left that alone.

Later I will check the 250vdc under load again. Will also check R192 and report back.

> Yes, XMTR K is grounded to transmit. What is the voltage on T14 when set
> for CW as the XMTR
> GAIN is rotated over its range?

Report back on this one soon.

While playing with the relay this morning I discovered something.

There is a reasonably heavy gauge wire that comes off the relay NO contact and goes back to the mode switch S2B (F) according to the diagram (F for front?). Now I'm not real good at reading these rotary switch diagrams I must admit. But something does not feel right here. What I 'think' I can see from the circuit diagram is that this switch wafer is supposed to hold earth potential on this wire for two click positions. Which is what the relay will also connect to this wire when energized. I don't know what these two positions are but I'll guess CAL and SSB. On the third click position this wire is connected to C225 *and* V13B pin 1. I think. If I'm reading this correctly which I'm probably not. But what I don't understand is that I have a direct connection to ground on this wire in three positions. CAL, SSB and x-CW. It is only in the x-AM position that I don't have a ground. This testing done with radio turned off.

Is this normal?

More later. Making progress.

73, Steve.

19414. TR7 PTO Instability

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 04:47:48 UTC
From: Leon Zebrick
Topic: 19414 Message: 19414

Any chance of servicing a PTO? My TR7 is jumping around in frequency, almost digital-like by about 20 hz or so. Does this about every 15 seconds. Not a general drift, but discrete small jumps, up and down. seems to get worse as the rig warms. I've isolated this problem to the PTO by monitoring the PTO output directly on a separate receiver. To further confirm a PTO problem, I isolated it from the rig by unloading its output, also monitored input DC voltages with a scope (stable). Added a secondary ground as a test - no help. I've removed the shield can and refloated all of the solder joints - no improvement. I'm up to pulling the PTO and changing components, but I'm afraid I may make matters worse. Is this a common problem with a known fix? Recommendations appreciated. Thanks.

19415. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 10:55:32 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19415

Hi All,

Grrr, I'm a complete goose at times!

My nice new relay doesn't work at all. Why? Because it only has 3 odd volts across it. Why? Because the relay coil resistance forms part of a series voltage divider with both R80 and R79. The voltage across the relay drops as the coil resistance drops. My new relay only has a 300ohm coil hence the 3 or so volts.

The good news is:-

I've learnt something! :-) And thankfully I did the mod properly so that it could be easily reversed with no wiring loom or component placement changes.

I'm at a cross-roads. If I replace R79 currently 11K with spec'ed 10K and do likewise with R80 4.7K currently about 4.9K. Then I just might be able to raise the voltage across the original relay enough to make it behave. But I'm worried. As it appears to be in poor mechanical shape. The other options would be source and replace the relay with a good working original item. Or third option is that my mod is going to have to get a lot more complex.

For the moment I'm going to sleep on it. Sorry didn't get past the relay not working to do any of the other tests yet.

73, Steve

> Afternoon Garey/All,
>
> Nearly 2:00pm here. Lunchtime UTC +10 (+1 more for daylight savings).
>
> First thing this morning I isolated the relay coil and started testing it
> with an adjustable bench power supply. Could not get it to reliably behave
> at 11 volts. So I pulled it out and started playing with it on the bench.
> I convinced myself that the problem with the relay is mechanical. It will
> pull-in perfectly once and then jam up for subsequent cycles. I made it
> much better by straightening the armature metallic contact strip that
> comes round the rear of the armature to the relay frame. But I could not
> make it behave 100%.
>
> Given that the relay has been the source of annoyance for a previous
> owner. Judging by all the screwdriver scratch marks on the armature
> itself. I decided to replace it for the moment. So I've spent the morning
> grafting in a suitable +12vdc miniature relay on a small carrier board. I
> was able to deliberately keep all the lead dress and lengths the same so

> that a swap back to another genuine relay won't be hard.
>
> Just going to break for lunch and then smoke test this new relay. Let you
> know what happens soon. I'm still expecting to have the same fault symptom
> because even when I held the relay in with a plastic adjustment tool it
> didn't work.
>
>> You don't mention if whistling in the mic produces output.
>
> I have not wired a microphone up yet. Be easier initially to inject a
> signal from an audio oscillator. What level should I use? I'll try and
> test this later today.
>
>> I don't 'think' your diagnosis is correct.
>
> Good! I didn't like my diagnosis anyway! <:-)
>
> Thinking about it last night the 11K for a 10K 10% resistor is still in
> spec (just) so I left that alone.
>
> Later I will check the 250vdc under load again. Will also check R192 and
> report back.
>
>> Yes, XMTR K is grounded to transmit. What is the voltage on T14 when
>> set
>> for CW as the XMTR
>> GAIN is rotated over its range?
>
> Report back on this one soon.
>
> While playing with the relay this morning I discovered something.
>
> There is a reasonably heavy gauge wire that comes off the relay NO contact
> and goes back to the mode switch S2B (F) according to the diagram (F for
> front?). Now I'm not real good at reading these rotary switch diagrams I
> must admit. But something does not feel right here. What I 'think' I can
> see from the circuit diagram is that this switch wafer is supposed to hold
> earth potential on this wire for two click positions. Which is what the
> relay will also connect to this wire when energized. I don't know what
> these two positions are but I'll guess CAL and SSB. On the third click
> position this wire is connected to C225 *and* V13B pin 1. I think. If I'm
> reading this correctly which I'm probably not. But what I don't understand
> is that I have a direct connection to ground on this wire in three
> positions. CAL, SSB and x-CW. It is only in the x-AM position that I don't
> have a ground. This testing done with radio turned off.
>
> Is this normal?
>
> More later. Making progress.
>

> 73, Steve.
>
>
>
>

19416. Re: [DrakeRadio] TR7 PTO Instability

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 12:29:41 UTC
From: Steve Wedge
Topic: 19414 Message: 19416

I think the yoke is already grounded on the TR-7, but check that strap.

It does sound a lot like my issue from a few years ago that I had with an R-4A. The problem was a bad silver mica capacitor in the tuned circuit.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 15, 2014, at 12:47 AM, Leon Zebrick <lzebrick@...> wrote:
>
> Any chance of servicing a PTO? My TR7 is jumping around in frequency, almost digital-like by about 20 hz or so. Does this about every 15 seconds. Not a general drift, but discrete small jumps, up and down. seems to get worse as the rig warms. I've isolated this problem to the PTO by monitoring the PTO output directly on a separate receiver. To further confirm a PTO problem, I isolated it from the rig by unloading its output, also monitored input DC voltages with a scope (stable). Added a secondary ground as a test - no help. I've removed the shield can and refloated all of the solder joints - no improvement. I'm up to pulling the PTO and changing components, but I'm afraid I may make matters worse. Is this a common problem with a known fix? Recommendations appreciated. Thanks.
>

19417. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 15:19:44 UTC
From: Garey Barrell
Topic: 19344 Message: 19417

Good Morning! :-) 0950 Saturday morning here.

OK on your progress....

Steve VK2SJA wrote:
> Afternoon Garey/All,
>
> Nearly 2:00pm here. Lunchtime UTC +10 (+1 more for daylight savings).
>
> First thing this morning I isolated the relay coil and started testing it
> with an adjustable bench power supply. Could not get it to reliably behave
> at 11 volts. So I pulled it out and started playing with it on the bench.
> I convinced myself that the problem with the relay is mechanical. It will
> pull-in perfectly once and then jam up for subsequent cycles. I made it
> much better by straightening the armature metallic contact strip that
> comes round the rear of the armature to the relay frame. But I could not
> make it behave 100%.
>
> Given that the relay has been the source of annoyance for a previous
> owner. Judging by all the screwdriver scratch marks on the armature
> itself. I decided to replace it for the moment. So I've spent the morning
> grafting in a suitable +12vdc miniature relay on a small carrier board. I
> was able to deliberately keep all the lead dress and lengths the same so
> that a swap back to another genuine relay won't be hard.
>
> Just going to break for lunch and then smoke test this new relay. Let you
> know what happens soon. I'm still expecting to have the same fault symptom
> because even when I held the relay in with a plastic adjustment tool it
> didn't work.
>> Does not sound good for the relay. Your diagnosis may be correct on the relay coil. It
should really 'click' closed and open reliably at 11 VDC.
>>
>> Yeah, 3 VDC ain't gonna work..........
>>
> I have not wired a microphone up yet. Be easier initially to inject a
> signal from an audio oscillator. What level should I use? I'll try and
> test this later today.

At this point either the audio test with something less than 100 mV -OR- just the DC
voltage check v XMTR GAIN on T14. Just want to confirm that the audio or DC unbal current
are reaching the BAL MOD.

>> I don't 'think' your diagnosis is correct.
> Good! I didn't like my diagnosis anyway! <:-)
>
> Thinking about it last night the 11K for a 10K 10% resistor is still in

> spec (just) so I left that alone.
>
> Later I will check the 250vdc under load again. Will also check R192 and
> report back.

OK.
>> Yes, XMTR K is grounded to transmit. What is the voltage on T14 when set
>> for CW as the XMTR
>> GAIN is rotated over its range?
> Report back on this one soon.

See above
> While playing with the relay this morning I discovered something.
>
> There is a reasonably heavy gauge wire that comes off the relay NO contact
> and goes back to the mode switch S2B (F) according to the diagram (F for
> front?). Now I'm not real good at reading these rotary switch diagrams I
> must admit. But something does not feel right here. What I 'think' I can
> see from the circuit diagram is that this switch wafer is supposed to hold
> earth potential on this wire for two click positions. Which is what the
> relay will also connect to this wire when energized. I don't know what
> these two positions are but I'll guess CAL and SSB. On the third click
> position this wire is connected to C225 *and* V13B pin 1. I think. If I'm
> reading this correctly which I'm probably not. But what I don't understand
> is that I have a direct connection to ground on this wire in three
> positions. CAL, SSB and x-CW. It is only in the x-AM position that I don't
> have a ground. This testing done with radio turned off.
>
> Is this normal?

My schematic shows that this wire should go to C225 (to Pin 2) and C221, then C221 connects
to
Pin 1. I believe the schematic is wrong, because as shown there is no DC return on the
Cathode
of V2. I think the wire should go directly to Pin 2, and then C225 be connected from Pin 2
to
ground.

You are correct, S2B (f) means the second wafer from the panel, on the front side of the
wafer.
The positions are shown by the MODE switch drawing connected by the dotted line. Also
notice
that the 'arrow' of the grounded tag is LONGER than the others, meaning it is still
connected to
the wiper in ALL positions. The other arrows are short, so the result is that any time the
'tab' of the switch contacts a 'short' arrow, it is grounded.

So the wafer is in the CAL position, the Cathode of V5 (Calibrator) is grounded via R29,
turning
it ON. The n.o. relay contact is also grounded, along with the Cathode of V16 via R87,
turning

it ON.

When the switch is turned to SSB, the relay n.o. contact & V16 are still grounded by S2.

When turned to CW, K2 'should' pull in grounding the Cathode of V16 via R87, and, through the
MODE switch ground Pin 1 of V13 (disabling XMIT ALC) and the Cathode of V2 (enabling SIDETONE
oscillator). These are all ALSO grounded via S2, so the grounding via K2 must just be for RF
purposes, or?

In AM, K2 grounds the Cathode of V16 via R87, and Pin 1 of V13 is grounded via S2.

V2 is a strange stage, as it serves as the Detector and 1st AF Amp in receive, and as the SIDETONE generator in CW, via switching on the (r) side of S2B.

73, Garey - K4OAH
Glen Allen, VA

19418. Where does PTO spring go?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 15:25:21 UTC
From: <rochep@...>
Topic: 19418 Message: 19418

The spring on the top of my PTO popped out. (Actually I removed it to clean the can off and forgot to note how it attached.) It is obvious where one end of the spring goes (through the hole on the top of the PTO can), but where does the OTHER end of the spring hook?

paul

19419. Re: [DrakeRadio] Where does PTO spring go?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 15:29:44 UTC
From: Garey Barrell
Topic: 19418 Message: 19419

Paul -

Hole in the top 'finger' of the lead screw 'rider'. Keeps tension on the threads of the lead screw.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> The spring on the top of my PTO popped out. (Actually I removed it to clean the can off and
> forgot to note how it attached.) It is obvious where one end of the spring goes (through the
> hole on the top of the PTO can), but where does the OTHER end of the spring hook?
>
> paul
>
>

19420. Re: Where does PTO spring go?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-15 16:55:05 UTC
From: <rochep@...>
Topic: 19418 Message: 19420

got it, thanks!

p

19421. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 00:26:20 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19421

Hi Garey/All,

Some days I just don't understand the universe.

This morning I grabbed that recalcitrant relay and decided to give it another test, with a view to resurrecting it. I can't fail it. Even with only 8vdc supply the darn thing is working like a champ! Something odd. Yesterday I measured the coil resistance at some 985 ohms and this morning it is a solid 1,000 ohms. How do you gain nearly 20 ohms???

Re-installed it. Still working perfectly (for now) with 9.64v across it. For the moment have not touched either R80 or R79. Much nicer than my modern kludge. Looks like Drake meant to be there!

It will probably come back to haunt me. But for the moment let's move on.

Some overdue answers to questions:-

Junction of T14 and R76, where R76 exits CO shielding has 0 -> 0.422 vdc as XMTR GAIN control is adjusted.

Injecting ~= 1KHz tone at 70mV into microphone jack in SSB mode while also keying PTT on same jack. Result:- as XMTR GAIN control increases from zero I start to hear the tone in the speaker. Monitor function? Normal? Level controlled by side-tone? I assume you can turn it down to nothing?

However no increase in idle current from .1 at any time.

You asked about voltages. Specifically the 250vdc so here they all are again. As measured from the bulkhead feed-through caps while the radio was in RX:-

--- REAR of RADIO ---

+650 => 624v
+250 => 216v
BIAS1 => -48.3
BIAS2 => -46.4
Heaters => 11vac

(Not sure why there is BIAS on two feed-throughs but because levels were slightly different I give both).

R192 measures 29.3 ohms and condition looks very good. I have left it alone for the moment.

I don't think I've forgotten anything.

Off again to contemplate the circuit. As I've run out of immediate ideas and things to test.

Thanks again for all your assistance.

73, Steve

19422. R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 01:05:04 UTC
From: <rochep@...>
Topic: 19422 Message: 19422

I have almost NO audio output from my R4A. Just replaced electrolytics, RX worked fine for a while then RX was noisy/intermittent and then NOTHING. Suspected a shot 6EH5; got a new one today and same problem. All voltages on tubes are good, the RX IS hearing signals, I can see S meter moving as I tune across band, I can peak on calibrator signal, etc... But just no sound. I DO hear slight hiss from speaker, so output transformer seems good (and resistances check out).

I did NOT replace the tantalum C173 yet, but I dont think that would cause this. I suspect Q7 and Q8. I measure 47V on the tantalum cap. For Q7 I measure 0.47V on E, 0.65V on B, and 1.1V on C of Q7. For Q8 I measure 1.8V on E, 6.5V on B, and 2.4V on C (I might have B and C reversed).

Could the volume control itself be shot? There is NO effect on this "hiss" as I turn up/down volume (or RF gain, for that matter). Is there a chart telling me expected values on Q5-Q8?

paul

19423. Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 01:09:36 UTC
From: <rochep@...>
Topic: 19422 Message: 19423

S?N is 5024 and it goes by the 4054 schematic, NOT the S/N 5400 schematic. The problem is not the speaker, same problem with headphones.

19424. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 02:23:01 UTC
From: Garey Barrell
Topic: 19344 Message: 19424

Steve -

Steve VK2SJA wrote:
> Hi Garey/All,
>
> Some days I just don't understand the universe.
>
> This morning I grabbed that recalcitrant relay and decided to give it
> another test, with a view to resurrecting it. I can't fail it. Even with
> only 8vdc supply the darn thing is working like a champ! Something odd.
> Yesterday I measured the coil resistance at some 985 ohms and this morning
> it is a solid 1,000 ohms. How do you gain nearly 20 ohms???
>
> Re-installed it. Still working perfectly (for now) with 9.64v across it.
> For the moment have not touched either R80 or R79. Much nicer than my
> modern kludge. Looks like Drake meant to be there!
>
> It will probably come back to haunt me. But for the moment let's move on.

OK, nobody ever said it would be easy!! :-)
>
> Some overdue answers to questions:-
>
> Junction of T14 and R76, where R76 exits CO shielding has 0 -> 0.422 vdc
> as XMTR GAIN control is adjusted.

Close enough.
>
> Injecting ~= 1KHz tone at 70mV into microphone jack in SSB mode while also
> keying PTT on same jack. Result:- as XMTR GAIN control increases from zero
> I start to hear the tone in the speaker. Monitor function? Normal? Level
> controlled by side-tone? I assume you can turn it down to nothing?

Not to worry, yet.......
>
> However no increase in idle current from .1 at any time.

When you turn up XMTR GAIN, voltage on the BAL MOD (T14) is going up as it should. A couple of
things bother me here. What we have here is a failure to communicate! Lets work on 80M for
simplicity. Your measurements indicate that there should be a carrier at 9 MHz coming out of
the BAL MOD when in the TUNE-CW MODE. This signal is routed through S7 (SIDEBAND switch) and
then through the Lower SB filter, back through S7, to the NB plug (There IS a shorting plug in

the NB socket, right??) through to T6, and sent on to the Grid 0f V4. Here the 9.0 MHz CAR OSC
is mixed with the 5.5 MHz from the PTO and the resultant 3.5 MHz product is selected and on to
the Grid of V6 where it is amplified and applied to the PA Grids.

Do you have, or have access to, an oscilloscope?? Would make things easier. If not, a coax
from a separate receiver tuned to 9.0 MHz, with a DC blocking capacitor at the tip, can check
for signal through the Grid of V4, and then at 3.5 MHz at the Plate of V4, Grid of V6, and Grids
of the PA, being stronger at each point.
>
> You asked about voltages. Specifically the 250vdc so here they all are
> again. As measured from the bulkhead feed-through caps while the radio was
> in RX:-
>
> --- REAR of RADIO ---
>
> +650 => 624v
> +250 => 216v
> BIAS1 => -48.3
> BIAS2 => -46.4
> Heaters => 11vac
>
> (Not sure why there is BIAS on two feed-throughs but because levels were
> slightly different I give both).

Those voltages are very low. They should be more like 700, 260, -60, -58 VDC and 12.6 VAC.
BIAS1 is the PA bias and BIAS2 is the ALC sample. We need to measure R45 and measure the
voltage across it in 'BIAS set mode' to calculate what the idle current really is. With BIAS1 at
-48 you may have a 'dead' PA tube forcing the other two to account for the full 0.1A, or 50 mA
each. A good check is to measure the three 15 ohm resistors and then measure the voltage drop
across them in 'BIAS set'. They should each be about 0.5 VDC so ~ 30 mA each if actually 15 ohms.
>
> R192 measures 29.3 ohms and condition looks very good. I have left it alone for the
moment.

It's a little high, which increases its dissipation. It normally runs close to 0.5W, and should
NOT be made bigger. Again, it is a FUSE to protect the wiring harness in case of a short on the
+250 bus.

You can check the DC voltages on V4 and V6.

73, Garey - K4OAH

19425. Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 03:15:15 UTC
From: <rochep@...>
Topic: 19422 Message: 19425

I might be getting somewhere. I was playing around and found that if AVC is OFF, I can hear stations in AM mode only! I do NOT hear them anymore if I switch to AVC SLow/fast or even to AM. So with bandswitch set to AM I do NOT hear AM signals, but simply moving bandswitch over the AVC OFF I now hear them on AM!! They are weak and distorted, but I hear them. SOunds like my problem is in my product detector/BFO stage. But how can I hear AM with AVC OFF but not with bandswitch in AM mode?

paul

19426. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 05:37:20 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19426

Hi Garey/All,

>
> OK, nobody ever said it would be easy!! :-)
>

Be no fun if it was! Well maybe...?

More answers:-

All of the following is done with the band switch set for 3.5MHz.
Previously had tried all bands. No change in fault.

>There IS a shorting plug in the NB socket, right??

Yes. There is a shorting plug in the noise blanker option socket.

> Do you have, or have access to, an oscilloscope??

Yes. I have a two scope's. 30MHz analog and 100MHz digital. Don't claim to know how to use either one properly but can give it a good try! :-)

> for signal through the Grid of V4, and then at 3.5 MHz at the Plate of V4,
> Grid of V6, and Grids of the PA, being stronger at each point.
>

Assuming I'm using the 'scope properly (big assumption). I have a good signal levels at all points in the chain until I get to the grids of the PA finals. Where I do have a detectable signal but it is nearly nothing.

Specifically:-

About 7.5v AC signal at junction R32 and R119. As close as I could get to Pin 2 V6 easily. With TX GAin at max. Complex RF waveform. Grids of PA have same signal but *really* low. About 0.5 volts at max TX gain.

Going to change fault description. You can at max XMTR GAIN see an increase on internal plate meter above 0.1mA - about 1/2 to 1 needle thickness. But you can definitely see it lift ever so slightly when TX GAIN is increased to max.

I do have a spare (supposedly good) 12BY7 driver. In fact I had already replaced this tube because I didn't like the look of the one originally in the rig. The original has sooty deposits visible on the inside of the envelope at the bottom. Which I suspect may indicate a tube gone gassy? I just now swapped back from the "new" driver to the original one. No change in fault. Two faulty drivers?

> Those voltages are very low. They should be more like 700, 260, -60, -58
> VDC and 12.6 VAC.

I can lift mains supply if you wish. Lift it too much though and the AC3 transformer won't like us.

> We need to measure R45 and measure the voltage across it in 'BIAS set
> mode' to calculate what the idle current really is.

I had done this exercise before but re-worked it again this morning. Sanity check:-

R45 is 2.2 Ohms
By calculation voltage across R45 should be 0.22 volts at 100mA (0.1A)
BIAS currently set so that voltage across R45 in BIAS set mode is 0.223 volts (close as I could get).

Internal plate meter smack on 0.1A! (Meter upside down. Radio inverted. I note the movement shifts ever so slightly when right side up).

Other news:-

Final tubes all three replaced this morning with another set. For supposedly "good tested" tubes (look like pulls to me, not NOS). No change in fault. BIAS voltage after tube change but before new adjustment was 0.180 volts across R45 in BIAS set mode. Now set 0.223 volts as per adjustment above.

15 Ohm resistors R93, R167 and R121 all replaced by me previously.

R93, 14.3 ohms, 0.395v
R167, 14.2 ohms, 0.510v
R121, 14,1 ohms, 0.395v

Voltages above are those seen across these resistors during the BIAS set function. These measurements are something of a moving target. Slow drift up. Tubes warm up and resistors heating I guess? Resistors seem to reduce resistance value as they get hot? Each time I key X-CW for a few seconds the reading is little bit different. Seems to climb then eventually plateau. The results above are my best effort at finding the plateau.

> You can check the DC voltages on V4 and V6.

Gotta take a break. But I'll get these voltages to you shortly.

73, Steve.

19427. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 06:37:00 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19427

Garey/All,

Stand down on the fault analysis.

I just went to key the TX using the X-CW again. The radio had been burbling away in the background for well over an hour. Getting nice and warm (hot). Guess what? My relay is back to it's old tricks. Only half pulling in. Also the main relay isn't switching over properly. The effect is that I have a tune side-tone but can still hear RX audio at the same time.

I now suspect that we have a very fundamental power supply problem which needs fixing first. After that we may, or may not, have 'other' issues. But one thing at a time.

How hot does the AC3 transformer get just cruising along in RX supply mode? Is 122'F 50'C normal?

Just quickly measured R110 and R112 and have 2.34K for one and 2.25K for the other (have not checked which is which yet). Spec says 2.5K, are my values OK?

Is this all just a case of running +250 at only +216 which causes regulated +150 to look like +140v (as measured just a moment ago)???

I'm going to lift the mains supply back up tomorrow morning and see if this helps any.

73, Steve

19428. DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 12:34:41 UTC
From: <wa0urj@...>
Topic: 19428 Message: 19428

It appears that the USB filter in my Drake TR-3 is not working. The receive is down and it only makes about 15 watts power. LSB works fine. Does anyone know where I am able to find a replacement USB filter for the TR-3 ?

David-WA0URJ

19429. Re: [DrakeRadio] Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 14:37:26 UTC
From: Garey Barrell
Topic: 19422 Message: 19429

Paul -

I'm getting confused... Common problem, too many 'projects' going at one time. You have a Late
"A" CD, so the voltage chart for those stages is in the MISC directory. You have serious problems in the 'low voltage' supply to the AF and PD stages. There should be about 14 VDC across C173, NOT the 47 VDC you measure. The voltages on Q7/8 are all wrong, and at least Q8
appears 'blown'. The Base voltage of a silicon transistor can never be more than 0.6 VDC 'above' (either more + or - depending upon whether NPN or PNP) the Emitter.

You don't need to worry about the DMM anywhere in this area. I'm surprised that C173 isn't splattered all over the chassis if it REALLY has 47 VDC across it!! Voltage that high indicates
that the SS stages are NOT drawing the expected current, possibly due to blown Q's.

Check the voltages according to the chart on the CD and let me know what you get....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> I might be getting somewhere. I was playing around and found that if AVC is OFF, I can hear
> stations in AM mode only! I do NOT hear them anymore if I switch to AVC SLow/fast or even to
> AM. So with bandswitch set to AM I do NOT hear AM signals, but simply moving bandswitch over
> the AVC OFF I now hear them on AM!! They are weak and distorted, but I hear them. SOunds like
> my problem is in my product detector/BFO stage. But how can I hear AM with AVC OFF but not
> with bandswitch in AM mode?
>
> paul
>
>

19430. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 14:57:32 UTC
From: Garey Barrell
Topic: 19344 Message: 19430

Steve -

Steve VK2SJA wrote:
> Hi Garey/All,
>
>> OK, nobody ever said it would be easy!! :-)
>>
> Be no fun if it was! Well maybe...?

Yep, 'We do this for fun...', 'We do this for fun...', 'We do this for ....'! :-)

More answers:- All of the following is done with the band switch set for 3.5MHz. Previously had
tried all bands. No change in fault.
>> There IS a shorting plug in the NB socket, right??
> Yes. There is a shorting plug in the noise blanker option socket.
>
>> Do you have, or have access to, an oscilloscope??
> Yes. I have a two scope's. 30MHz analog and 100MHz digital. Don't claim to
> know how to use either one properly but can give it a good try! :-)
>
>> for signal through the Grid of V4, and then at 3.5 MHz at the Plate of V4,
>> Grid of V6, and Grids of the PA, being stronger at each point.
>>
> Assuming I'm using the 'scope properly (big assumption). I have a good
> signal levels at all points in the chain until I get to the grids of the
> PA finals. Where I do have a detectable signal but it is nearly nothing.
>
> Specifically:-
>
> About 7.5v AC signal at junction R32 and R119. As close as I could get to
> Pin 2 V6 easily. With TX GAin at max. Complex RF waveform. Grids of PA
> have same signal but *really* low. About 0.5 volts at max TX gain.

You should have a fairly clean sine wave at these points. If you have a counter available, check the frequency at this point. Watch out for AC and DC limits on the counter input!

Check value and condition of R36 and R40, and voltages on the Driver stage.
>
> Going to change fault description. You can at max XMTR GAIN see an
> increase on internal plate meter above 0.1mA - about 1/2 to 1 needle
> thickness. But you can definitely see it lift ever so slightly when TX
> GAIN is increased to max.
>
> I do have a spare (supposedly good) 12BY7 driver. In fact I had already
> replaced this tube because I didn't like the look of the one originally in

> the rig. The original has sooty deposits visible on the inside of the
> envelope at the bottom. Which I suspect may indicate a tube gone gassy? I
> just now swapped back from the "new" driver to the original one. No change
> in fault. Two faulty drivers?

Sounds like you are getting 'some' drive to the PA, maybe or maybe not enough or on the right
frequency. You should see more like 150 VAC on the Grids. Again, WATCH OUT for input limitations of your scope. You should always use a x10 probe around here, and even they can be
driven well past their limitations on both AC and DC.
>
>> Those voltages are very low. They should be more like 700, 260, -60, -58
>> VDC and 12.6 VAC.
> I can lift mains supply if you wish. Lift it too much though and the AC3
> transformer won't like us.
The transformer does run hot, but I would have guessed closer to 40C. Never measured one. Drake transformers in general run HOT. Have you redone the filter caps in the PS? Leaky caps
can cause high heat.

(This is one of the problems with this type of interaction. All the previous info is no longer
handy, and when you have four or five 'projects' going at a time it can be difficult to keep
them straight!! :-))
>
>> We need to measure R45 and measure the voltage across it in 'BIAS set
>> mode' to calculate what the idle current really is.
> I had done this exercise before but re-worked it again this morning.
> Sanity check:-
>
> R45 is 2.2 Ohms
> By calculation voltage across R45 should be 0.22 volts at 100mA (0.1A)
> BIAS currently set so that voltage across R45 in BIAS set mode is 0.223
> volts (close as I could get).
>
> Internal plate meter smack on 0.1A! (Meter upside down. Radio inverted. I
> note the movement shifts ever so slightly when right side up).

OK, that's comforting..... Never hurts to 'check your sources'!
>
> Other news:-
>
> Final tubes all three replaced this morning with another set. For
> supposedly "good tested" tubes (look like pulls to me, not NOS). No change
> in fault. BIAS voltage after tube change but before new adjustment was
> 0.180 volts across R45 in BIAS set mode. Now set 0.223 volts as per
> adjustment above.
>
> 15 Ohm resistors R93, R167 and R121 all replaced by me previously.

>
> R93, 14.3 ohms, 0.395v
> R167, 14.2 ohms, 0.510v
> R121, 14,1 ohms, 0.395v
>
> Voltages above are those seen across these resistors during the BIAS set
> function. These measurements are something of a moving target. Slow drift
> up. Tubes warm up and resistors heating I guess? Resistors seem to reduce
> resistance value as they get hot? Each time I key X-CW for a few seconds
> the reading is little bit different. Seems to climb then eventually
> plateau. The results above are my best effort at finding the plateau.

Really shouldn't 'drift'. Sounds like PA tubes are a little 'gassy', but not enough to affect
where we are now. Best to have well used tubes at this point! Judging from your voltage readings, V9 may be the gassy one.
>
>> You can check the DC voltages on V4 and V6.
> Gotta take a break. But I'll get these voltages to you shortly.
>
>
73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

19431. Re: [DrakeRadio] Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 15:25:30 UTC
From: <rochep@...>
Topic: 19422 Message: 19431

PROBLEM SOLVED!!

This was a wierd one. C163!!! I replaced C163 a few days ago and everything seemed fine (0.47 uF on board 2 to S2). I did not hear from Garey for 12 hours (panicking!), so was looking and looking and looking. I DID work before, and now was CRAZY, I was assuming something mechanical. Sure enough, with magnifying glass on board 2 noticed that C163 solder joint was not "cold" but the trace seems to "lift off" to circuit board. So I re-flowed more solder and VOILA, all better. C173 now has 14 V DC across it.

SSB fine, AM fine, all seems fine. Only "problem" with the radio, that i have had from day 1, is that I must turn the gain WAY UP when listening to CW stations on the 1.2 kc or 0.4 kc positions (compared to when I find them scanning on the 2.4 kc bandwidth). But this can be worked on now that I have SOUND.

(Oh yeah, my original 6EH5 is fine after all!).
Thanks Gary, if you responded within 10 minutes like you usually do I would not have sat there and stared and stared and stared and ... ...

paul

19432. Re: [DrakeRadio] Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 15:52:05 UTC
From: Garey Barrell
Topic: 19422 Message: 19432

Paul -

Sorry I was so slow!! :-) One of the reasons I don't replace those caps..... That broken
connection killed the BFO, so not drawing it's expected current. This destroyed all voltages
and currents in the SS stages. Still amazed that C173 didn't explode if it really had 47 VDC
across it!

Did you find the voltage chart?? Still check for correct DC voltage on V7 Cathode.

Hard to argue with success!!

Check C126 and C159, others that don't need to be replaced unless 'for cause'!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
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>
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> uF on board 2 to S2). I did not hear from Garey for 12 hours (panicking!), so was looking and
> looking and looking. I DID work before, and now was CRAZY, I was assuming something
> mechanical. Sure enough, with magnifying glass on board 2 noticed that C163 solder joint was
> not "cold" but the trace seems to "lift off" to circuit board. So I re-flowed more solder and
> VOILA, all better. C173 now has 14 V DC across it.
>
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>
> (Oh yeah, my original 6EH5 is fine after all!).

> Thanks Gary, if you responded within 10 minutes like you usually do I would not have sat there
> and stared and stared and stared and ... ...
>
> paul
>
>

19433. Re: [DrakeRadio] Re: R4A audio problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 16:11:28 UTC
From: <rochep@...>
Topic: 19422 Message: 19433

Hi Hi.

I guess I am the master of fixing things that ain't broke! Like replacing that electrolytic can for $30 when all seemed to be working fine.

Or buying the 2BRadioparts cap kit, I replaced
C91, C173, C176 electrolytics
C126, C89, C109, C163 "paper" caps

I have 3.4 volts on pin 1 of V7, good to go.
I replaced C126 in the kit and C159 is a ceramic disc, looks good to me.

Thanks a ton. I really should learn this lesson.

paul

19434. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 18:09:16 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 19434

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

19435. TR-4C or -4CW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 18:41:33 UTC
From: k7mks@...
Topic: 19435 Message: 19435

Would appreciate if someone would measure the resistance from Pin 11 of the chassis male power connector to ground. My TR-4CW is acting up and I suspect the problem is in the 250V line somewhere.

Thank you,

joe k7mks

19436. 6JB6 tube matching procedure

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 21:51:40 UTC
From: <dcoffman@...>
Topic: 19436 Message: 19436

Somewhere I have seen a 6JB6 tube matching procedure that was written by Bill Frost but I cannot seem to Google it? I have also seen another method mentioned here but I have had poor luck searching the groups since the change in the Yahoo format. I apologize in advance as I'm sure this information has been repeated here numerous times.

I just came into 14 NOS Sylvania 6JB6A tubes, adding to the 8 or 10 NOS Sylvanias that I already have as well as some Ratheons. I've heard that Sylvania's don't need to be matched but I'd like to use my TR-4Cw or preferably my T-4XC to match several sets of tubes for smiles and grins. I am using all "Off Branded" 6JB6A tubes in my transmitters; until they are dead I am keeping all of the Sylvanias set back for a time when I cannot find the "Cheap" ones. With this said, I've been using a TR-4Cw for 10 years or so and have never had to replace a 6JB6 (knock on wood); this started with a period of several months when it took me way too long to tune up as I was learning how do use the rig. I now have over 12 Drakes, a combination of TR-4,C and Cw , C, B and A line twins. All have good tubes in them but I have been hording spares. Well, realistically I have been hording radios as well, I believe it is an illness and I may need a Betty Ford addiction program.

Thanks,

Doug - N9XTF

19437. Re: TR-4C or -4CW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 21:57:24 UTC
From: <dcoffman@...>
Topic: 19435 Message: 19437

Joe,

I measured 11.837K on my TR-4 that's on the bench. I used my Fluke 289 to make the measurement.

If need be, I can check it against my TR-4Cw later?

Hope this helps,

Doug - N9XTF

19438. Re: TR-4C or -4CW

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 22:11:32 UTC
From: <dcoffman@...>
Topic: 19435 Message: 19438

Joe,

I just measured my TR-4, sitting on the bench, at 11.836K.

If need be, I can measure my TR-4Cw that's normally in operation, later this evening?

Hope this helps,

Doug - N9XTF

19439. R4, R4A, R4B, or R4C cabinet top

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 22:31:20 UTC
From: <w5rkl@...>
Topic: 19439 Message: 19439

Hi everyone,

It's a very soggy Sunday afternoon here in eastern Oklahoma so spent the day working on my R4A receiver (thanks Paul (K3STX), a lot of work but the R4A is working great now). Gain was down on all bands. During a second cleaning process I found R51, 150 ohm resistor, in the Pre-Mixer "plate" that was broken in half, barely making contact. Replaced that resistor, very tight area, and receiver gain improved significantly and receiver alignment went very well..

Okay, enough of that.

I am looking for a cabinet "top" from any of the R4 receivers, they all should fit the R4A. The top I have came from an Drake SW4. It fits even with all the extra "speaker holes" that were drilled in the top, but I would like to get a correct top for the R4A.

If you have one, scraps are okay but no dents, no bends, and no extra holes drilled in the top, contact me off list, my call at yahoo dot com.

73
Mike W5RKL

19440. Drake inventory - excess units

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 23:17:51 UTC
From: <oilieone@...>
Topic: 19440 Message: 19440

My collecting habit has been a little too severe. I have the following equipment I would like to sell. I'm listing the equipment for the Drake group before going to other outlets. Just have no room for this gear!

The equipment is:
T-4XC SN 28893 needs some TLC
T-4XC SN 30055 unknown condition. Bought it because of the high SN
CC-1 SN 368 nice condition
TC-2 SN 0068 case is scratched
TR-4C SN 36214
DC-3 SN 4800. NOS. Never used, in original box from RL Drake
RV-4 SN 17045 bought and never used. excellent condition.

I have photos of the equipment for those interested. PM me at oilieone@ cox dot net.

Thanks everyone!

K5FEX
Wayne
Oklahoma City

19441. Re: [DrakeRadio] TR-4C - No output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 23:24:25 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19441

Hi Garey/All,

This morning I bypassed my AC mains step down altogether. Which places about 250vac at the primary of the AC3 power supply.

This power supply has already been upgraded with a ES4AC-3 kit.

The transformer emits a loud unpleasant hum. Looking at the 250vdc line I can see initially about 270vdc. But after ~20 seconds of operation the voltage falls away rapidly and settles back down at 245vdc.

I am beginning to suspect that this transformer may well be faulty?

Only way I can think to resolve the issue is to source (yet another) power supply.

I'll take this offline until then.

Thanks for all your assistance.

73, Steve.
VK2SJA

19442. Re: [DrakeRadio] Drake inventory - excess units

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 23:35:53 UTC
From: vacuuminded2@...
Topic: 19440 Message: 19442

Prices?

Sent from my outdated iPhone wireless thingy

On Mar 16, 2014, at 6:17 PM, <oilieone@...> wrote:

>
> My collecting habit has been a little too severe. I have the following equipment I would like to sell. I'm listing the equipment for the Drake group before going to other outlets. Just have no room for this gear!
>
>
>
> The equipment is:
>
> T-4XC SN 28893 needs some TLC
> T-4XC SN 30055 unknown condition. Bought it because of the high SN
>
> CC-1 SN 368 nice condition
>
> TC-2 SN 0068 case is scratched
>
> TR-4C SN 36214
>
> DC-3 SN 4800. NOS. Never used, in original box from RL Drake
>
> RV-4 SN 17045 bought and never used. excellent condition.
>
>
>
> I have photos of the equipment for those interested. PM me at oilieone@ cox dot net.
>
>
>
> Thanks everyone!
>
>
>
> K5FEX
>
> Wayne
>
> Oklahoma City
>
>
>

>

19443. RE: [DrakeRadio] Wanted: TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 23:52:08 UTC
From: Jeff Weinberg
Topic: 19303 Message: 19443

Hi Bill,

Yes, I did find one or two.

Thanks all for the help!

Jeff W8CQ

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of William Houghton
Sent: Friday, March 14, 2014 9:18 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Wanted: TR-4

Hi Jeff,

Did you find your TR-4 project?

73,

Bill, WA6NEQ

From: "w8cq@..." <w8cq@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, March 7, 2014 5:46 PM
Subject: [DrakeRadio] Wanted: TR-4

Hello All,
I am looking for a TR-4 for a project. It does not have to be pretty or even work, just all of the parts there.

What have you?

Jeff W8CQ

19444. Re: [DrakeRadio] TR-4C - No output *Eureka!*

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 00:53:34 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19444

Hi Garey,

Thank-you kind Sir, for you have fixed yet another Drake!!! :-) (most probably, part not replaced yet).

I decided to continue and check all thing things you suggested. And do the voltage measurements requested.

Got as far as R40 and one glance told me it wasn't right. Someone had replaced this resistor at some point. With a wimpy modern 1/4 watt resistor. It looks very stressed :-) Plastic insulation covering has run down a leg following gravity such that one resistor leg only (lower) is thinly and evenly coated with brown plastic. I've never seen a resistor like it. Black carbon pit hole showing through one side of the resistor where a minor explosion occurred. Needless to say it is open circuit.

So now to replace it. 1/2 watt carbon composition this time.

I'll let you know how I get on.

Thanks Again!

73, Steve
VK2SJA

19445. Re: [DrakeRadio] 6JB6 tube matching procedure

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 01:57:27 UTC
From: Garey Barrell
Topic: 19436 Message: 19445

Doug -

As my Daughter used to say, "What a lucky duck"... :-)

You can 'match' them easily with any Drake transmitter. Put only ONE good 6JB6 in any socket of
the PA. Set the idle current for 30 mA. Then plug the others into the same socket, one at a time, and record the current _without_ adjusting the BIAS. Pick two, (or three,) with the closest currents and that's your matched set. Within +/- 5% is 'matched'.

If you have a more accurate meter, I would suggest you use it. OR, you can just measure the voltage across the 15 ohm Cathode resistor for that socket with a DMM, should be close to 0.500
VDC, assuming a 15.000 ohm resistor. Otherwise, record the voltage that produces 33 mA with whatever the resistor measures with the DMM.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
>
> Somewhere I have seen a 6JB6 tube matching procedure that was written by Bill Frost but I
> cannot seem to Google it? I have also seen another method mentioned here but I have had poor
> luck searching the groups since the change in the Yahoo format. I apologize in advance as I'm
> sure this information has been repeated here numerous times.
>
>
> I just came into 14 NOS Sylvania 6JB6A tubes, adding to the 8 or 10 NOS Sylvanias that
> I already have as well as some Ratheons. I've heard that Sylvania's don't need to be matched
> but I'd like to use my TR-4Cw or preferably my T-4XC to match several sets of tubes for smiles
> and grins. I am using all "Off Branded" 6JB6A tubes in my transmitters; until they are dead I
> am keeping all of the Sylvanias set back for a time when I cannot find the "Cheap" ones. With
> this said, I've been using a TR-4Cw for 10 years or so and have never had to replace a 6JB6

> (knock on wood); this started with a period of several months when it took me way too long to
> tune up as I was learning how do use the rig. I now have over 12 Drakes, a combination of
> TR-4,C and Cw , C, B and A line twins. All have good tubes in them but I have been hording
> spares. Well, realistically I have been hording radios as well, I believe it is an illness and
> I may need a Betty Ford addiction program.
>
>

19446. Re: [DrakeRadio] 6JB6 tube matching procedure

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 02:18:42 UTC
From: Steve Wedge
Topic: 19436 Message: 19446

That's how I did it recently. One tube in the same socket and measured the voltage across the cathode resistor, while idling, without changing the bias.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Sunday, March 16, 2014 9:57 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 6JB6 tube matching procedure

Doug -

As my Daughter used to say, "What a lucky duck"... :-)

You can 'match' them easily with any Drake transmitter. Put only ONE good 6JB6 in any socket of
the PA. Set the idle current for 30 mA. Then plug the others into the same socket, one at a time, and record the current _without_ adjusting the BIAS. Pick two, (or three,) with the closest currents and that's your matched set. Within +/- 5% is 'matched'.

If you have a more accurate meter, I would suggest you use it. OR, you can just measure the voltage across the 15 ohm Cathode resistor for that socket with a DMM, should be close to 0.500
VDC, assuming a 15.000 ohm resistor. Otherwise, record the voltage that produces 33 mA with whatever the resistor measures with the DMM.

73, Garey - K4OAH
Glen Allen, VA

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> (knock on wood); this started with a period of several months when it took me way too
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hording
> spares. Well, realistically I have been hording radios as well, I believe it is an
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> I may need a Betty Ford addiction program.
>
>

19447. Re: [DrakeRadio] TR-4C - No output *Eureka!*

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 14:00:06 UTC
From: Garey Barrell
Topic: 19344 Message: 19447

Steve -

Cool! That will definitely kill drive to the PA!! :-) 'Modern' film resistors don't do well in that application. They can't stand the current surges, which is probably what got that one.
The weak spot in the 'film' just vaporized when a slug of Plate current hit it.

Best to replace it with an Ohmite OX ceramic composition, 1W type. A 'good' carbon comp 1/2W is
ok, but a 1W CC is too big physically.

The 'complex' waveform you reported is a little concerning, but that may clear up with a proper
alignment. Keep us posted!

Good catch!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
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>
> Thank-you kind Sir, for you have fixed yet another Drake!!! :-) (most
> probably, part not replaced yet).
>
> I decided to continue and check all thing things you suggested. And do the
> voltage measurements requested.
>
> Got as far as R40 and one glance told me it wasn't right. Someone had
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> resistor. It looks very stressed :-) Plastic insulation covering has run
> down a leg following gravity such that one resistor leg only (lower) is
> thinly and evenly coated with brown plastic. I've never seen a resistor
> like it. Black carbon pit hole showing through one side of the resistor
> where a minor explosion occurred. Needless to say it is open circuit.
>
> So now to replace it. 1/2 watt carbon composition this time.
>
> I'll let you know how I get on.
>
> Thanks Again!
>

> 73, Steve
> VK2SJA
>

19448. [DrakeRadio] TR-4C - Good Output Some Bands.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 22:38:02 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19448

Hi Garey/All,

> Best to replace it with an Ohmite OX ceramic composition, 1W type. A
> 'good' carbon comp 1/2W is
> ok, but a 1W CC is too big physically.

I actually had two 470ohm 1 watt "carbon" new in a plastic bag. They weren't too large so I fitted one and the radio is now making output power.

I did the cold-screen PA neutralisation which was a snap.

However not all bands have good output. Very quick test:-

3.5 = 200 watts
7.0 = 50 watts
14.0 = 195 watts
21.0 = Testing aborted because power supply started mucking up again. Relay's would drop out during tune process.

For these tests I had the AC mains back down at 220v.

So I'll wander off now and concentrate on fixing the supply issue.

A pattern is emerging. My power supply problem is most certainly related to heat. Only happens after the radio has been on for quite some time. And I'm not convinced that the fault isn't inside the actual radio itself.

Even though it tested OK I'm going to have another very long, hard look at R192 and also RFC13 and perhaps even C154. I'll try and catch it with a meter but I think my 250v is dropping off with heat.

Anyway, great progress! We now have a radio with both working RX and making good output power (on some bands at least). Still some teething problems to sort. But this patient is well on the road to recovery.

Keep you posted.

73, Steve.
VK2SJA

19449. Re: [DrakeRadio] TR-4C - Good Output Some Bands.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 22:49:33 UTC
From: Steve Wedge
Topic: 19344 Message: 19449

The problem on 40 could likely be misalignment. If you can't get the RF output alignments to work by monitoring output or plate current, try monitoring the driver output with a scope and peaking signals that way. I've found that you can detect the small increases with each adjustment so that you can get everything to play together. The scope is much more sensitive and works to align when someone before you was in there with a "golden screwdriver".

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve VK2SJA
Sent: Monday, March 17, 2014 6:38 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR-4C - Good Output Some Bands.

Hi Garey/All,

> Best to replace it with an Ohmite OX ceramic composition, 1W type. A
> 'good' carbon comp 1/2W is
> ok, but a 1W CC is too big physically.

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Keep you posted.

73, Steve.
VK2SJA

19450. Re: [DrakeRadio] Drake inventory - excess units

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-16 23:35:01 UTC
From: Mike
Topic: 19440 Message: 19450

Sent from my iPhone

> On Mar 16, 2014, at 6:17 PM, <oilieone@...> wrote:
>
>
> My collecting habit has been a little too severe. I have the following equipment I would like to sell. I'm listing the equipment for the Drake group before going to other outlets. Just have no room for this gear!
>
>
>
> The equipment is:
>
> T-4XC SN 28893 needs some TLC
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>
> CC-1 SN 368 nice condition
>
> TC-2 SN 0068 case is scratched
>
> TR-4C SN 36214
>
> DC-3 SN 4800. NOS. Never used, in original box from RL Drake
>
> RV-4 SN 17045 bought and never used. excellent condition.
>
>
>
> I have photos of the equipment for those interested. PM me at oilieone@ cox dot net.
>
>
>
> Thanks everyone!
>
>
>
> K5FEX
>
> Wayne
>
> Oklahoma City
>
>
>
>

19451. TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 22:52:51 UTC
From: Gerald Eberle
Topic: 19451 Message: 19451

Hello All

I am new to this group as I recently had the chance to buy a TR4CW with NB, Speaker and PS in optically good conditions. There was sum hum on rx and keying with my Logikit CMOS-4 was not proper.

After recapping the PS with the kit from ke9pq as a safety I have still some hum coming from the transformer but had many SSB contacts with good audio reports. The PS must have been fallen down sometime outside of the speaker cabinet as there are several bends on its cabinet and also some signs on the transformer where the hum seems to come from. The hum while using headphones in cw is disturbing but I can get along with it at the moment. Keying with my CMOS-4 is still not properly working. Keying is erratic and there is no sidetone. Everything works ok with a hand key. And I made several contacs during last weekend using the mic for ptt and the audio from CMOS-4 keyer, but that makes no sense even that I can make contacts this way.

I have cleaned the relay and then noticed a black spot on the board underneath R142. The value of R142 measured around 49 Ohm instaed of 27 Ohm. Replacing it did not change the behavior of the keying. Voltage at the relays with R142 in line is about 225V, without R142 around 270V.

I like the sound of this rig very much and would like to be able to use it in cw as well.

So my question… is there anything I can do or should I go with the Universal Keying Adapter from hamgadgets.com?

Many thanks to the group in advance!

73, Gerald - HB9CEY

19452. Re: [DrakeRadio] TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-17 23:44:37 UTC
From: Steve Wedge
Topic: 19451 Message: 19452

It depends on how sensitive your ears and brain are to the hum. Compared with hifi, there will always be some hum that is faintly audible in the absence of other signals.

If it's louder than that and you've replaced all your electrolytics, try changing the audio output tube (6AQ5).

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Gerald Eberle
Sent: Monday, March 17, 2014 6:52 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR4CW keying

Hello All

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73, Gerald - HB9CEY

19453. Re: [DrakeRadio] TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 00:38:31 UTC
From: Richard Knoppow
Topic: 19451 Message: 19453

----- Original Message -----
From: "Gerald Eberle" <gerald.eberle@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, March 17, 2014 3:52 PM
Subject: [DrakeRadio] TR4CW keying

Hello All

I am new to this group as I recently had the chance to buy a TR4CW with NB, Speaker and PS in optically good conditions. There was sum hum on rx and keying with my Logikit CMOS-4 was not proper.

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So my question? is there anything I can do or should I go with the Universal Keying Adapter from hamgadgets.com?

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73, Gerald - HB9CEY

A couple of questions for clarification. When you say hum from the transformer do you mean mechanical hum? If so and especially if there are signs of damage to the chassis it may be that the bolts clampling the laminations are a

little loose. Tighen them and see if the hum gets better or goes away.
Hum on CW may be coming from the BFO or from the AVC as well as the audio amplifier. First thing is to work all the chassis screws. Many grounds are mad through these screws and they often develop high resisance over time. By working them I mean loosen them a little and tighten them again. Do it a couple of times to wipe the surfaces. This trick can solve all sorts of mysterious problems.
If the hum is at power line frequency it can be coming from a tube due to heater to cathode leakage or poor heater ground return as noted above. It can also come from a half-wave rectifier. I am not sure about the TR-4CW but some other Drake rigs use half-wave rectifiers for AVC bias and IMO don't have enough filtering.
If the hum is twice the power line frequency it just about has to be coming from the main power supply. Since you just rebuilt this doublel check all the wiring, especially the grounds, and if the hum persists, check to make sure the new caps are good. Again, grounding can be a problem so check the power supply chassis as noted for the transceiver chassis and make sure the connections through the multi-pin plug are good.
Another question, and I should have asked at the beginning, what kind of headphones are you using? The headphone jack goes to the loudspeaker winding on the putput transformer and is a match for about 4 ohm speakers. If you are using high fidelity headphones with speaker level impedance, that is anything from around 4 to around 30 ohms, they will be very loud and have good bass response. They may make perfectly normal residual hum very loud. At the time this equipment was made typical headphones had impedances of from around 600 ohms to as much as 20K ohms. All of which will have a much lower level than the hi-fi phones plus mostly they do not reproduce much bass.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19454. Re: [DrakeRadio] TR-4C - Good Output Some Bands.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 02:12:01 UTC
From: Garey Barrell
Topic: 19344 Message: 19454

Steve -

OK. Progress!

So it's working on the two 'image' bands, the CO mixing in V4 with PTO + (20M) and - (80M). The
other bands require V1A (BAND Oscillator) and V1B (Amp on 80/20, Mixer on other bands) to be
working. So that's the next target area.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Steve VK2SJA wrote:
> Hi Garey/All,
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> problems to sort. But this patient is well on the road to recovery.
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> Keep you posted.
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> 73, Steve.
> VK2SJA
>
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> Yahoo Groups Links
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19455. Re: [DrakeRadio] TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 02:36:22 UTC
From: Garey Barrell
Topic: 19451 Message: 19455

Gerald -

Are you talking about audio hum or mechanical hum from the transformer?

The CMOS-4 keyer should work just fine by itself. That's what I use with all my Drake gear. You must use the Negative (-) keying option, the Drakes have about -60 VDC on the key and less
than a mA to ground to key.

R142 ??? R192 27 ohm, 1/2W, is a 'fuse' to protect the wiring harness in case of a short on the +250. It runs very close to it's dissipation rating, but should only drop about 6 VDC in
operation.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Gerald Eberle wrote:
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> works ok with a hand key. And I made several contacs during last weekend using the mic for ptt
> and the audio from CMOS-4 keyer, but that makes no sense even that I can make contacts

this way.
>
> I have cleaned the relay and then noticed a black spot on the board underneath R142. The value
> of R142 measured around 49 Ohm instaed of 27 Ohm. Replacing it did not change the behavior of
> the keying. Voltage at the relays with R142 in line is about 225V, without R142 around 270V.
>
> I like the sound of this rig very much and would like to be able to use it in cw as well.
>
> So my question? is there anything I can do or should I go with the Universal Keying Adapter
> from hamgadgets.com <http://hamgadgets.com/>?
>
> Many thanks to the group in advance!
>
> 73, Gerald - HB9CEY
>

19456. Re: [DrakeRadio] TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 05:30:35 UTC
From: Gerald Eberle
Topic: 19451 Message: 19456

Hello Joe

Thanks for your info. Yes, I had always set the jumper for this mode as I was aware of this. But it does not help.

73, Gerald

Am 18.03.2014 um 00:33 schrieb Joe W2KJ:

> Howdy Gerald:
>
> I have a CMOS4 keyer and to use it with grid block keying as with the TR4CW you need to use the correct jumper on the keying output of the keyer.
>
> Believe you need to set the jumper to select "mode A"...that uses the MPSA92 transistor for output keying.
>
> Hope this helps.
>
> 73, Joe W2KJ
>

19457. Re: [DrakeRadio] TR-4C - Gotchya!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 09:10:36 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19457

Hi All,

Went and had another look at R192. Placed a thin screwdriver between PCB and resistor to bend/lift it up a bit to get a good look at the underside of the resistor. It popped out of the PCB at one end - opps. I guess you call that a dry joint!

Then while fixing this by installing a new 27ohm resistor I noticed something else interesting. The very next solder pad along. Which is one of the pins from the main relay holder, was somewhat 'special'. Someone had forgot to actually solder the pin!! :-)

Fixed this too. Very limited testing but so far - no more relay drop-outs.

Power out looks like:-

3.5 - 200w
7.0 - 60w
14.0 - 190w
21.0 - 180w
28.0 - 90w
28.5 - 70w
29.1 - 40w

Did change out V1 same result. Think I shall just proceed with full alignment and see what comes out in the wash.

Very happy. Looking good.

73, Steve.

> Steve -
>
> OK. Progress!
>
> So it's working on the two 'image' bands, the CO mixing in V4 with PTO +
> (20M) and - (80M). The
> other bands require V1A (BAND Oscillator) and V1B (Amp on 80/20, Mixer on
> other bands) to be
> working. So that's the next target area.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

>
> Steve VK2SJA wrote:
>> Hi Garey/All,
>>
>>> Best to replace it with an Ohmite OX ceramic composition, 1W type. A
>>> 'good' carbon comp 1/2W is
>>> ok, but a 1W CC is too big physically.
>> I actually had two 470ohm 1 watt "carbon" new in a plastic bag. They
>> weren't too large so I fitted one and the radio is now making output
>> power.
>>
>> I did the cold-screen PA neutralisation which was a snap.
>>
>> However not all bands have good output. Very quick test:-
>>
>> 3.5 = 200 watts
>> 7.0 = 50 watts
>> 14.0 = 195 watts
>> 21.0 = Testing aborted because power supply started mucking up again.
>> Relay's would drop out during tune process.
>>
>> For these tests I had the AC mains back down at 220v.
>>
>> So I'll wander off now and concentrate on fixing the supply issue.
>>
>> A pattern is emerging. My power supply problem is most certainly related
>> to heat. Only happens after the radio has been on for quite some time.
>> And
>> I'm not convinced that the fault isn't inside the actual radio itself.
>>
>> Even though it tested OK I'm going to have another very long, hard look
>> at
>> R192 and also RFC13 and perhaps even C154. I'll try and catch it with a
>> meter but I think my 250v is dropping off with heat.
>>
>> Anyway, great progress! We now have a radio with both working RX and
>> making good output power (on some bands at least). Still some teething
>> problems to sort. But this patient is well on the road to recovery.
>>
>> Keep you posted.
>>
>> 73, Steve.
>> VK2SJA
>>
>>
>>
>>
>>
>> ------------------------------------
>>

>> Yahoo Groups Links
>>
>>
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>>
>
>

19458. L7 fixed Mica Capacitors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 15:31:17 UTC
From: <wb0hhm@...>
Topic: 19458 Message: 19458

I am working on a L7 amp that doesn't work on 160 meters
Looking for a replacement source for the Fixed Mica Capacitors C48, C49 and C50
.0007 @ 2500 Volts all three are the same .

Ray WB0HHM

19459. Re: [DrakeRadio] L7 fixed Mica Capacitors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 16:20:16 UTC
From: Garey Barrell
Topic: 19458 Message: 19459

Ray -

All Three! are bad??

You might try John Kriner. <jkriner(at)cinci.rr.com>

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

wb0hhm@... wrote:
>
>
> I am working on a L7 amp that doesn't work on 160 meters
>
> Looking for a replacement source for the Fixed Mica Capacitors C48, C49 and C50
>
> .0007 @ 2500 Volts all three are the same .
>
>
> Ray WB0HHM
>
>
>
>
>
>
>

19460. Re: [DrakeRadio] L7 fixed Mica Capacitors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 16:40:24 UTC
From: Jim Wiley
Topic: 19458 Message: 19460

Check VERY carefully the wiring of the band switch! I had an L7 where the output section of the band switch was mis-wired from the factory, with the symptoms that the L7 would not load on 160 meters. The additional loading capacitors for both 80 and 160 meters were not being connected properly. On 80 meters operation was marginal, but it worked after a fashion, not so much on 160. Once the wiring was rearranged so that the auxiliary loading capacitors were switched in as they should be, the amp worked as advertised. The wiring looked OK at first glance, but after staring at it a while, the error was apparent. The clue was that the amplifier capacitors "tuned" well outside the indicated arc on t\he dial.

- Jim, KL7CC

On 3/18/2014 8:20 AM, Garey Barrell wrote:
>
> Ray -
>
> All Three! are bad??
>
> You might try John Kriner. <jkriner(at)cinci.rr.com>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> wb0hhm@... wrote:
> >
> >
> > I am working on a L7 amp that doesn't work on 160 meters
> >
> > Looking for a replacement source for the Fixed Mica Capacitors C48,
> C49 and C50
> >
> > .0007 @ 2500 Volts all three are the same .
> >
> >
> > Ray WB0HHM
> >
> >
> >
> >

> >
> >
> >
>
>

19461. Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 19:30:12 UTC
From: William Houghton
Topic: 19461 Message: 19461

Garey and the group,

I know a lot of hams speak well of the Shure 444 (I have one of the HRO branded 444's). I also have a CB44 handheld which, like the 444, is also a controlled magnetic mic with hi-Z and low-Z wiring options. Do you feel the same way about most of the Shure controlled magnetic mics as you do about the 444?

73,

Bill, WA6NEQ

19462. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 19:45:11 UTC
From: William Houghton
Topic: 19428 Message: 19462

I don't think the TR-3 had individually packaged crystal filters. The TR-3 has a "soup can" that has both filters and the sideband switch in it. I don't know what the insides of that soup can look like, though.

Bill, WA6NEQ

From: "wa0urj@..." <wa0urj@yahoo.com>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, March 16, 2014 5:34 AM
Subject: [DrakeRadio] DRAKE TR-3 USB FILTER

It appears that the USB filter in my Drake TR-3 is not working. The receive is down and it only makes about 15 watts power. LSB works fine. Does anyone know where I am able to find a replacement USB filter for the TR-3 ?

David-WA0URJ

19463. Re: [DrakeRadio] Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 20:08:52 UTC
From: Garey Barrell
Topic: 19461 Message: 19463

Bill -

I'm a CW guy, so I'm not really one to ask! :-) Richard Knoppow or Jim Shorney, among many others, are far more qualified than I regarding microphones! Shure mics in general are good quality and have decent 'sound'. So much depends upon your individual voice characteristics too.

MY test for a mic is to talk to a friend who has talked to me in person. If they say 'it sounds
like you', then I'm happy..

I would just post to the list and see what surfaces!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

William Houghton wrote:
>
>
> Garey and the group,
>
> I know a lot of hams speak well of the Shure 444 (I have one of the HRO branded 444's). I
> also have a CB44 handheld which, like the 444, is also a controlled magnetic mic with hi-Z
> and low-Z wiring options. Do you feel the same way about most of the Shure controlled magnetic
> mics as you do about the 444?
>
>

19464. Re: [DrakeRadio] Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 20:16:58 UTC
From: Ken Winterling
Topic: 19461 Message: 19464

Bill,

I have used all of the following with good results:
* 419A (HiZ hand mic), 419B (LoZ hand mic),
* 444 (HiZ), 444D (switchable LoZ/HiZ),
* 404B (LoZ hand mic), 404C (HiZ hand mic),
* 520SL (HiZ)

Ken
WA2LBI

On Tue, Mar 18, 2014 at 3:30 PM, William Houghton <rdrbill@...>wrote:

>
>
> Garey and the group,
>
> I know a lot of hams speak well of the Shure 444 (I have one of the HRO
> branded 444's). I also have a CB44 handheld which, like the 444, is also
> a controlled magnetic mic with hi-Z and low-Z wiring options. Do you feel
> the same way about most of the Shure controlled magnetic mics as you do
> about the 444?
>
> 73,
>
> Bill, WA6NEQ
>

19465. Re: [DrakeRadio] Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 21:01:15 UTC
From: WA6WGS
Topic: 19461 Message: 19465

Hi Bill,
After being off the air for awhile, i put my old Sure 404C back to work with my T4XC. I still get very good audio reports.
Ed WA6WGS

Sent from my iPhone

> On Mar 18, 2014, at 1:16 PM, Ken Winterling <wa2lbi@gmail.com> wrote:
>
> Bill,
>
> I have used all of the following with good results:
> * 419A (HiZ hand mic), 419B (LoZ hand mic),
> * 444 (HiZ), 444D (switchable LoZ/HiZ),
> * 404B (LoZ hand mic), 404C (HiZ hand mic),
> * 520SL (HiZ)
>
> Ken
> WA2LBI
>
>
>> On Tue, Mar 18, 2014 at 3:30 PM, William Houghton <rdrbill@...> wrote:
>>
>>
>> Garey and the group,
>>
>> I know a lot of hams speak well of the Shure 444 (I have one of the HRO branded 444's). I also have a CB44 handheld which, like the 444, is also a controlled magnetic mic with hi-Z and low-Z wiring options. Do you feel the same way about most of the Shure controlled magnetic mics as you do about the 444?
>>
>> 73,
>>
>> Bill, WA6NEQ
>
>

19466. Element for Turner 22x mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 21:42:50 UTC
From: Robert Spooner
Topic: 19466 Message: 19466

I acquired a turner 22x microphone along with some other equipment. The element is dead, or nearly so. I'd like to replace the element and use the mic; it came with a nice Electrovoice grip to talk stand. Does anyone know where I can get a new crystal (or ceramic) element for it?

73,
Bob AD3K

19467. T-4XC idle current - finishing restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 23:45:09 UTC
From: <dcoffman@...>
Topic: 19467 Message: 19467

I am finalizing the restoration of my first C-Line; prior to putting the cases back on the transmitter, I decided to check the screen and grid resistors. I replaced R53 and R54 as they were 16.0 and 16.75 ohms each and R50 and R51 as they were 74.01 and 74.70 ohms respectively.

For smiles and grins, I measured the voltage drop across R53 (.402) and R54 (.507) in tune mode. R53 is 14.83 ohms and R54 is 14.85 ohms. This gives a current draw of 27.11 mA + 34.19 mA = 61.3 mA total. Now the first question is, is the current mismatch going to cause a significant issue, 20.7% variance seems quite high. Secondly, I have the bias set for 70mA, is the 61.3mA close enough or should I muck around and try to make the meter agree with my measurements?

Thanks,

Doug - N9XTF

19468. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-18 23:52:36 UTC
From: Byron Tatum
Topic: 19428 Message: 19468

Bill-

The TR-3's had two types of 9.0 Mhz filters. Earlier TR-3's (and some early TR-4's) had the "soup can", which was a dual 4-pole filter (LSB, USB) that used discrete HC-6/U sized crystals with wire leads. The crystals were soldered inside the tin can, along with some dipped silver mica capacitors.

Later TR-3's had a sealed, dual filter that replaced the soup can style. I do not know anything about the properties of this sealed filter assembly, however it appears to have a little steeper skirts than the soup can style.

CUL, Byron WA5THJ

19469. Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:08:58 UTC
From: Jeff Weinberg
Topic: 2054 Message: 19469

Hi Everyone,

Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?

Thanks,

Jeff W8CQ

19470. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:26:54 UTC
From: William Houghton
Topic: 19428 Message: 19470

Byron,

That's interesting. I had read that TR-3's have the soup can and the first versions of the TR-4 also had the soup can. I thought the second versions of the TR-4 had the sealed dual filter. Starting with the third TR-4 they went to the two sealed filters.

I wasn't aware that Drake used the dual sealed filter in a TR-3.

Thanks for the info.

73,

Bill, WA6NEQ

From: Byron Tatum <bjtatum1@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 18, 2014 4:52 PM
Subject: Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Bill-

The TR-3's had two types of 9.0 Mhz filters. Earlier TR-3's (and some early TR-4's) had the "soup can", which was a dual 4-pole filter (LSB, USB) that used discrete HC-6/U sized crystals with wire leads. The crystals were soldered inside the tin can, along with some dipped silver mica capacitors.

Later TR-3's had a sealed, dual filter that replaced the soup can style. I do not know anything about the properties of this sealed filter assembly, however it appears to have a little steeper skirts than the soup can style.

CUL, Byron WA5THJ

19471. Re: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:32:47 UTC
From: Evan Rolek
Topic: 2054 Message: 19471

Jeff,

I've always gotten great service from International Crystal. You tell them what you want, they have the data base for the specs. Plus, they have a lifetime guarantee.

73,

Evan, K9SQG

-----Original Message-----
From: Jeff Weinberg <w8cqjeff@...>
To: drakeradio <drakeradio@yahoogroups.com>
Sent: Tue, Mar 18, 2014 8:09 pm
Subject: [DrakeRadio] Crystals for SPR-4

Hi Everyone,
Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?

Thanks,
Jeff W8CQ

19472. I need a Drake PS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:38:33 UTC
From: <rochep@...>
Topic: 19472 Message: 19472

Just scored my first Drake TX (Thanks Wayne K5FEX) but I have no power supply. I don't need nuttin' pretty, I can clean up the case and will replace caps anyway. Not much money left after buying the T4XC, if anyone has an "extra" they want to part with contact me at k3stx at arrl dot net.
paul

19473. Re: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:43:59 UTC
From: Dan Galligan
Topic: 2054 Message: 19473

Jeff,
Try Bry Carling, AF4K. Good guy to deal with. I've dealt with him a few times, and he's always treated me right.
Bcarling@...

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Mar 18, 2014, at 19:08, Jeff Weinberg <w8cqjeff@...> wrote:
>
>
>
> Hi Everyone,
> Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?
>
> Thanks,
> Jeff W8CQ
>
>
>

19474. Re: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:53:00 UTC
From: Don Cunningham
Topic: 2054 Message: 19474

Jeff,
I have to echo Evan's comment on International Crystal in Oklahoma City. They have all the crystal info for the Drakes and make a very accurate cut that works or they replace with a new one. Ham run by the original family. Good folks to deal with.
73,
Don, WB5HAK
On 3/18/2014 7:08 PM, Jeff Weinberg wrote:
>
> Hi Everyone,
>
> Where is the best place to get accessory crystal for my new beautiful
> SPR-4 (Thanks Peter!!!!)?
>
> Thanks,
>
> Jeff W8CQ
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

19475. Re: [DrakeRadio] TR-4C - Gotchya!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:56:44 UTC
From: <radiomanl@...>
Topic: 19344 Message: 19475

Steve
I had the same problem with my TR3 . lost count of how many times I went through it and was ready to put it on the shelf as a display . tried the same microphone on a different rig and had the same problem . pulled the bottom plate of the 444D and found the PTT wire had never been soldered to the switch lug . was passed through it and twisted . posted the photo in the swan group as it is a swan badged 444D .

https://groups.yahoo.com/neo/groups/Siltronix1011Bunch/photos/albums/1141768433/lightbox/247966975 https://groups.yahoo.com/neo/groups/Siltronix1011Bunch/photos/albums/1141768433/lightbox/247966975

andrew
kd5pnt

19476. Re: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 00:56:44 UTC
From: L L bahr
Topic: 2054 Message: 19476

Buy them from a real crystal manufacturer. ICM has the Drake spec's and will make them for you so they are right on frequency. Just give them the model Drake you want them ground for. I suspect you will pay $23 each including shipping. http://www.icmfg.com/
Lee, w0vt

Hi Everyone,
Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?

Thanks,
Jeff W8CQ

19477. Re: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 01:13:58 UTC
From: Steve Wedge
Topic: 2054 Message: 19477

I've found them on eBay, too.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 18, 2014, at 8:43 PM, Dan Galligan <w3rxo@...> wrote:
>
> Jeff,
> Try Bry Carling, AF4K. Good guy to deal with. I've dealt with him a few times, and he's always treated me right.
> Bcarling@...
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
> Samuel Adams-Patriot and Brewer
>
>
> Sent from my iPad.
>
>> On Mar 18, 2014, at 19:08, Jeff Weinberg <w8cqjeff@...> wrote:
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>> Hi Everyone,
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>> Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?
>>
>>
>>
>> Thanks,
>>
>> Jeff W8CQ
>>
>
>

19478. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 01:55:51 UTC
From: Garey Barrell
Topic: 19428 Message: 19478

I've never seen a TR-3 with a sealed filter. The TR-3 had the soupcan, as Byron described. These were four pole filters with pretty wide skirts. This went into the early TR-4s as well.
The sideband filter was changed to a 6-Pole hermetically sealed unit manufactured by TYCO at
around s/n 18,000. The next change came around 24,000 and was the two separate 8-pole filters
that carried through to the end of production.

Anything outside these ranges is probably a factory modification. The soupcan was fairly reliable, but wouldn't come close to meeting the FCC 'Purity of Emissions' regulations of today. It seems like there have been a rash of failures lately, mostly on the LSB filter.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

William Houghton wrote:
>
>
> Byron,
>
> That's interesting. I had read that TR-3's have the soup can and the first versions of the
> TR-4 also had the soup can. I thought the second versions of the TR-4 had the sealed dual
> filter. Starting with the third TR-4 they went to the two sealed filters.
>
> I wasn't aware that Drake used the dual sealed filter in a TR-3.
>
> Thanks for the info.
>
> 73,
>
> Bill, WA6NEQ
>
> ---
> *From:* Byron Tatum <bjtatum1@...>
> *To:* "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> *Sent:* Tuesday, March 18, 2014 4:52 PM
> *Subject:* Re: [DrakeRadio] DRAKE TR-3 USB FILTER
>
>

> Bill-
> The TR-3's had two types of 9.0 Mhz filters. Earlier TR-3's (and some early TR-4's) had the
> "soup can", which was a dual 4-pole filter (LSB, USB) that used discrete HC-6/U sized crystals
> with wire leads. The crystals were soldered inside the tin can, along with some dipped silver
> mica capacitors.
> Later TR-3's had a sealed, dual filter that replaced the soup can style. I do not know
> anything about the properties of this sealed filter assembly, however it appears to have a
> little steeper skirts than the soup can style.
> CUL, Byron WA5THJ
>

19479. RE: [DrakeRadio] Crystals for SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 02:19:55 UTC
From: Jeff Weinberg
Topic: 2054 Message: 19479

Hi Guys,

Thanks for all the advice. I am going to get some from IC and try the ones on eBay.

Jeff W8CQ

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Evan Rolek
Sent: Tuesday, March 18, 2014 8:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Crystals for SPR-4

Jeff,

I've always gotten great service from International Crystal. You tell them what you want, they have the data base for the specs. Plus, they have a lifetime guarantee.

73,

Evan, K9SQG

-----Original Message-----
From: Jeff Weinberg <w8cqjeff@frontier.com>
To: drakeradio <drakeradio@yahoogroups.com>
Sent: Tue, Mar 18, 2014 8:09 pm
Subject: [DrakeRadio] Crystals for SPR-4

Hi Everyone,

Where is the best place to get accessory crystal for my new beautiful SPR-4 (Thanks Peter!!!!)?

Thanks,

Jeff W8CQ

19480. Re: [DrakeRadio] T-4XC idle current - finishing restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 02:22:49 UTC
From: Garey Barrell
Topic: 19467 Message: 19480

Doug -

Not good. This is part of the reason for 'matched' PA tubes.

For best linearity, (important,) the PA tubes should be matched so that each draws 35 mA of Plate current at idle. These tubes are being operated at their maximum capability, and if one is
a little low, the other has to make up the difference to equal the nominal 70 mA idle current.
This current is important, because it sets the operating point of the tube at the most linear
(low distortion) point, and if one is at 27 mA and the other is at 35 mA, only one is truly 'linear'.

The Cathode resistors should be within 5% of each other and the PA tube current at bias should
be as close as you can get them for best linearity. Tubes can be 'matched', by inserting them
one at a time in the same socket of the transmitter, setting the BIAS for 35 mA for the first,
hopefully 'good' tube. Then insert how ever many you have into the same socket, and record the
current drawn by each one without changing the BIAS voltage. The two that are closest together
in current are your matched pair.

61 mA is too low, for all the reasons stated above. The 'Test select' resistor (R13) is selected to make the meter read 70 mA when the actual current is 70 mA. If the shunt resistor
has changed value, you may have to change it to get R13 'in range'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
> I am finalizing the restoration of my first C-Line; prior to putting the cases back on the
> transmitter, I decided to check the screen and grid resistors. I replaced R53 and R54 as they
> were 16.0 and 16.75 ohms each and R50 and R51 as they were 74.01 and 74.70 ohms respectively.

>
>
> For smiles and grins, I measured the voltage drop across R53 (.402) and R54 (.507) in tune
> mode. R53 is 14.83 ohms and R54 is 14.85 ohms. This gives a current draw of 27.11 mA + 34.19
> mA = 61.3 mA total. Now the first question is, is the current mismatch going to cause
> a significant issue, 20.7% variance seems quite high. Secondly, I have the bias set for 70mA,
> is the 61.3mA close enough or should I muck around and try to make the meter agree with my
> measurements?
>
>

19481. Re: [DrakeRadio] Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 03:00:23 UTC
From: Jim Shorney
Topic: 19461 Message: 19481

I can't add much to that. Plug it in and try it out!

73

-Jim
NU0C

On Tue, 18 Mar 2014 16:08:52 -0400, Garey Barrell wrote:

>Bill -
>
>I'm a CW guy, so I'm not really one to ask! :-) Richard Knoppow or Jim Shorney, among many
>others, are far more qualified than I regarding microphones! Shure mics in general are
good
>quality and have decent 'sound'. So much depends upon your individual voice
characteristics too.
>
>MY test for a mic is to talk to a friend who has talked to me in person. If they say 'it
sounds
>like you', then I'm happy..
>
>I would just post to the list and see what surfaces!!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>William Houghton wrote:
>>
>>
>> Garey and the group,
>>
>> I know a lot of hams speak well of the Shure 444 (I have one of the HRO branded 444's).
I
>> also have a CB44 handheld which, like the 444, is also a controlled magnetic mic with
hi-Z
>> and low-Z wiring options. Do you feel the same way about most of the Shure controlled
magnetic
>> mics as you do about the 444?
>>
>>
>
>

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19482. Re: [DrakeRadio] Element for Turner 22x mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 03:04:47 UTC
From: Jim Shorney
Topic: 19466 Message: 19482

Try here:

http://kenselectronics.com/lists/micpart.htm#Cartridges

73

-Jim
NU0C

On Tue, 18 Mar 2014 17:42:50 -0400, Robert Spooner wrote:

>I acquired a turner 22x microphone along with some other equipment. The element is dead, or nearly so. I☐d like to replace the element and use the mic; it came with a nice Electrovoice grip to talk stand. Does anyone know where I can get a new crystal (or ceramic) element for it?
>
>73,
>Bob AD3K

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19483. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 03:44:33 UTC
From: Byron Tatum
Topic: 19428 Message: 19483

Regarding sealed filters in TR-3:
I have had about 3 or 4 of the TR-3's with the dual sealed filter pass through my shop. There were 2 different styles of the filter as evidenced by the ones in early TR-4's.
Thanks, Byron

19484. TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 04:23:26 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19484

Hi All,

Now contemplating a full alignment of the TR-4C. One of the first alignments off the cab-rank as it were is the Carrier Oscillator. Currently it is set bang on 9Mhz by counter.

The manual suggests adjusting C130 while switching back and forth between LSB/USB until the observed sound "pitch" or tone is the same, while listening to band noise.

My ears aren't that good. And even if they were my mind play's tricks!! (Was that an ET signal in the white-noise???)

Is there a better way?

Assuming that the filters are both "good", a search of the archives found a suggestion by Richard WB6KBL, to unbalance the 'Balanced Modulator' and adjust the carrier for equal strength on both sidebands using a 'scope. On the assumption that the filters are good this makes sense to me.
Question:- What is best/easiest way to totally unbalance a TR4 balanced modulator?

Anyone got an even better method?

73, Steve

19485. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 04:40:03 UTC
From: Jim Wiley
Topic: 19344 Message: 19485

You might experiment with using an audio spectrum analysis program, such as Spectrogram. Spectrogram is available for free download from the Elecraft web site, www.elecraft.com.

Such an analysis will let you balance the "sound" of each sideband, which is probably what you are wanting to obtain. Use a broadband white noise generator, schematic also available from the Elecraft site, to inject a signal into the transceiver. In fact, they have several reasonably priced test equipment items in kit form that might be of interest.

Note that the free version of Spectrogram they have on their web site is not the latest version,but it will serve well for this application. It works with your laptop and sound card to develop a graphic display of the audio response. Additional technical assistance is available from other users on the Elecraft reflector.

Elecraft's "builder resources" page on their web site lists the Spectrogram download as well as articles on it's use.

- Jim, KL7CC

On 3/18/2014 8:23 PM, Steve VK2SJA wrote:
>
> Hi All,
>
> Now contemplating a full alignment of the TR-4C. One of the first
> alignments off the cab-rank as it were is the Carrier Oscillator.
> Currently it is set bang on 9Mhz by counter.
>
> The manual suggests adjusting C130 while switching back and forth between
> LSB/USB until the observed sound "pitch" or tone is the same, while
> listening to band noise.
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> My ears aren't that good. And even if they were my mind play's tricks!!
> (Was that an ET signal in the white-noise???)
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> Assuming that the filters are both "good", a search of the archives found
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> adjust the carrier for equal strength on both sidebands using a 'scope. On
> the assumption that the filters are good this makes sense to me.
> Question:- What is best/easiest way to totally unbalance a TR4 balanced
> modulator?
>

> Anyone got an even better method?
>
> 73, Steve
>
>

19486. AC-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 10:09:47 UTC
From: g4jss@tiscali.co.uk
Topic: 15715 Message: 19486

Hello all
Just a quick one. Is the pinout on the AC-4 plug the same for all the 4 series?
Cheers
Vic
G4JSS

19487. L4b

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 11:49:56 UTC
From: Woody
Topic: 19487 Message: 19487

Hello, I recently purchased another L4B which works Great and Looks good to better. On the control knobs it has the normal wording, "Load, Band and ---" there is no lettering under the Plate knob, I had never seen one without it, my other L4B says Plate under the top most knob. Is this a Older version or Later or a slip up, you can tell that it was never there, also has 10 mtrs on it and tune input slug, which my other has a blue dot in the 10 mtr spot and no 10 mtr tuned input slug.
Just Curious
Woody

--

*Of **all **the things I've L**ost, I miss my Mind the Most~~~*

19488. RE: [DrakeRadio] T-4XC idle current - finishing restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 12:13:43 UTC
From: Doug Coffman
Topic: 19467 Message: 19488

Garey,

I’m using a pair of Ratheon 6JB6 tubes that were supposed to be a matched pair, go figure! You had posted to my response regarding matching 6JB6 tubes and I will proceed with that. I was hoping to use these tubes for the duration of their life before dipping into my Sylvania stock! I went through 12 Ohmite resistors to find a set that were matched for the cathodes, there is a pretty big variant between them; they are 10% however so not too surprising? I will match a set of tubes and put them in place; thanks for the information.

By shunt resistor, I’m assuming you are referring to the meter shunt resistor? Would it make sense to correct the meter shunt resistor if it is out of tolerance first and then change the test resistor following that to correct the reading?

Thanks for all the help,

Doug – N9XTF

From: DrakeRadio@...m [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Tuesday, March 18, 2014 10:23 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC idle current - finishing restoration

Doug -

Not good. This is part of the reason for 'matched' PA tubes.

For best linearity, (important,) the PA tubes should be matched so that each draws 35 mA of Plate current at idle. These tubes are being operated at their maximum capability, and if one is
a little low, the other has to make up the difference to equal the nominal 70 mA idle current.
This current is important, because it sets the operating point of the tube at the most linear
(low distortion) point, and if one is at 27 mA and the other is at 35 mA, only one is truly 'linear'.

The Cathode resistors should be within 5% of each other and the PA tube current at bias should
be as close as you can get them for best linearity. Tubes can be 'matched', by inserting them
one at a time in the same socket of the transmitter, setting the BIAS for 35 mA for the first,
hopefully 'good' tube. Then insert how ever many you have into the same socket, and record the
current drawn by each one without changing the BIAS voltage. The two that are closest together
in current are your matched pair.

61 mA is too low, for all the reasons stated above. The 'Test select' resistor (R13) is selected to make the meter read 70 mA when the actual current is 70 mA. If the shunt resistor
has changed value, you may have to change it to get R13 'in range'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

dcoffman@... <mailto:dcoffman@pdswireless.com> wrote:
>
>
> I am finalizing the restoration of my first C-Line; prior to putting the cases back on the
> transmitter, I decided to check the screen and grid resistors. I replaced R53 and R54 as they
> were 16.0 and 16.75 ohms each and R50 and R51 as they were 74.01 and 74.70 ohms respectively.
>
>
> For smiles and grins, I measured the voltage drop across R53 (.402) and R54 (.507) in tune
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> mA = 61.3 mA total. Now the first question is, is the current mismatch going to cause
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> is the 61.3mA close enough or should I muck around and try to make the meter agree with my
> measurements?
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

19489. Re: [DrakeRadio] L4b control lettering

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 12:18:54 UTC
From: Chgypsy@...
Topic: 19489 Message: 19489

Woody,
I am sure that a guru will get back with you but this subject came up as I recall last year (2013).

In that reference the conversation was NONE of the knobs were marked. The final answer was to x point did and then they didn't.
Missing one set of lettering sounds like perhaps they were running out of labels maybe..?? Carl wd8nhk

ko4bg1@... writes:

"Load, Band and ---" there is no lettering under the Plate knob, I had never seen one without it, my other L4B says Plate under the top most knob.
Woody

--

Of all the things I've Lost, I miss my Mind the Most~~~

19490. Re: [DrakeRadio] L4b

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 12:41:31 UTC
From: GALE STEWARD
Topic: 19487 Message: 19490

Both my L4 and L4B have the control labeled as PLATE. Also, they both have the ten meter band switch position labeled 10.

73, Stew K3ND

_____
From: Woody <ko4bg1@...>
To: Drake Yahoo Group <drakeradio@yahoogroups.com>
Sent: Wednesday, March 19, 2014 7:49 AM
Subject: [DrakeRadio] L4b

Hello, I recently purchased another L4B which works Great and Looks good to better. On the control knobs it has the normal wording, "Load, Band and ---" there is no lettering under the Plate knob, I had never seen one without it, my other L4B says Plate under the top most knob. Is this a Older version or Later or a slip up, you can tell that it was never there, also has 10 mtrs on it and tune input slug, which my other has a blue dot in the 10 mtr spot and no 10 mtr tuned input slug.
Just Curious
Woody
--

Of all the things I've Lost, I miss my Mind the Most~~~

19491. Re: [DrakeRadio] L4b

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 12:55:13 UTC
From: Dino Papas
Topic: 19487 Message: 19491

I got my L-4B new in 1979 and it was missing the 10m input coil/cap set and had a gray dot over the “10” at the band switch and load positions where they should have been. Drake provided me with the 10m input circuit to install and I very carefully rubbed the dot with a pencil eraser and found the “10” underneath the dabs of paint.

This rock solid box still working FB after all these years (power supply rebuild of course)…although I recently replaced the 3-500Zs and repaired the filament tube socket pin on one bulb where the spring clip had deformed over time and lost its “springiness” - this led to overheating of the pin and a slight reflow of the solder in the pin. After replacing the clip with one from a spare socket and carefully reflowing the solder pin and adding a bit of silver solder hopefully that issue is resolved.

Next time you have your L-4B open for maintenance check all those socket pins….it will be apparent if you have a problem and well worth fixing as a preventative measure.

If anyone wants a little more info let me know and I’ll send along a short paper describing the issue along with some pix that I put together for my club.

Dino KL0S

On Mar192014, at 0841 AM, GALE STEWARD <k3nd@...> wrote:

>
> Both my L4 and L4B have the control labeled as PLATE. Also, they both have the ten meter band switch position labeled 10.
>
> 73, Stew K3ND
>
>
> From: Woody <ko4bg1@...>
> To: Drake Yahoo Group <drakeradio@yahoogroups.com>
> Sent: Wednesday, March 19, 2014 7:49 AM
> Subject: [DrakeRadio] L4b
>
>
>
> Hello, I recently purchased another L4B which works Great and Looks good to better. On the control knobs it has the normal wording, "Load, Band and ---" there is no lettering under the Plate knob, I had never seen one without it, my other L4B says Plate under the top most knob. Is this a Older version or Later or a slip up, you can tell that it was never there, also has 10 mtrs on it and tune input slug, which my other has a blue dot in the 10 mtr spot and no 10 mtr tuned input slug.
> Just Curious
> Woody
>
> --

>
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>
>
>
>
>
>

19492. Re: Element for Turner 22x mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 13:13:26 UTC
From: <gbeat5@...>
Topic: 19466 Message: 19492

Bob -

An eBay reseller in Eastern Nebraska was selling entire trays of NOS (surplus) Turner ceramic (Hi-Z) and dynamic (Lo-Z) microphone elements. As I remember, they were in $15 to $25 range.
Jim, NU0C may know that former employee from Telex/Turner plant (Lincoln, NE).
greg, w9gb

19493. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 13:53:50 UTC
From: John King
Topic: 19428 Message: 19493

Byron, I had my knee replacement surgery in Houston, Texas March 04 and am doing well. I plan to be at Belton next Friday and Saturday. Hope to see you there.

Nine hours is a long drive from Baton Rouge, La. area. 73, John, K5PGW

On Wednesday, March 19, 2014 12:14 AM, Byron Tatum <bjtatum1@att.net> wrote:

Bill-

The TR-3's had two types of 9.0 Mhz filters. Earlier TR-3's (and some early TR-4's) had the "soup can", which was a dual 4-pole filter (LSB, USB) that used discrete HC-6/U sized crystals with wire leads. The crystals were soldered inside the tin can, along with some dipped silver mica capacitors.

Later TR-3's had a sealed, dual filter that replaced the soup can style. I do not know anything about the properties of this sealed filter assembly, however it appears to have a little steeper skirts than the soup can style.

CUL, Byron WA5THJ

19494. L7 Power and mA meter face

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 11:17:38 UTC
From: PY5VB-Villas Boas
Topic: 15715 Message: 19494

Hi All.

I recently bought a L7 S/N 2579 and both panel instrument are yellow face place irregularly. I found that the cause was the back lamps. I ask: Is there a solution to return white or only replacing that instruments panel?

73, Villas - PY5VB

19495. Re: [DrakeRadio] AC-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 14:43:45 UTC
From: Steve Wedge
Topic: 15715 Message: 19495

In a word, yes.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 19, 2014, at 6:09 AM, "g4jss@tiscali.co.uk" <g4jss@...> wrote:
>
> Hello all
> Just a quick one. Is the pinout on the AC-4 plug the same for all the 4 series?
> Cheers
> Vic
> G4JSS
>

19496. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 16:05:37 UTC
From: Richard Knoppow
Topic: 19344 Message: 19496

----- Original Message -----
From: "Steve VK2SJA" <vk2sja@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 18, 2014 9:23 PM
Subject: [DrakeRadio] TR4 CO Alignment

> Hi All,
>
> Now contemplating a full alignment of the TR-4C. One of
> the first
> alignments off the cab-rank as it were is the Carrier
> Oscillator.
> Currently it is set bang on 9Mhz by counter.
>
> The manual suggests adjusting C130 while switching back
> and forth between
> LSB/USB until the observed sound "pitch" or tone is the
> same, while
> listening to band noise.
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> My ears aren't that good. And even if they were my mind
> play's tricks!!
> (Was that an ET signal in the white-noise???)
>
> Is there a better way?
>
> Assuming that the filters are both "good", a search of the
> archives found
> a suggestion by Richard WB6KBL, to unbalance the 'Balanced
> Modulator' and
> adjust the carrier for equal strength on both sidebands
> using a 'scope. On
> the assumption that the filters are good this makes sense
> to me.
> Question:- What is best/easiest way to totally unbalance a
> TR4 balanced
> modulator?
>
> Anyone got an even better method?
>
> 73, Steve
>
First of all if you don't have Garey's disc for the
TR-4 get it!
The TR-4 uses the same filters for receiving and

transmitting and the same carrier oscillator is used for both. The book method for setting the oscillator is to listen to noise on receiving. Tune the set to an unused frequency. If there is enough noise with the antenna detached use that and balance the sound as best you can. A meter across the speaker may help. The idea of adjusting in transmission is based on the assumption that the slopes of the fliters are identical. Tune everthing up on a dummy load. Unbalance the balanced modulator with the variable resistor to get enough carrier to see on a scope. It may not need to be fully unbalanced. Then adjust the oscillator frequency trimmer for the same level when switching from one sideband to the other. When you get them the same re-balance the modulator. When you check fore the pitch of the noise in receive it should be about the same. I say about because the two filters may not be exactly identical and the ear is pretty sensitive to small variations when directly compared. If you have an auxilliary receiver with a wide pass band listen to your own signal using good headphones, again you should hear little difference between sidebands although there may be a little. Make sure you tune the test receiver very carefully, you can hear slight mistuning this way that you would never hear on a normal signal.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19497. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 16:07:23 UTC
From: Richard Knoppow
Topic: 19344 Message: 19497

----- Original Message -----
From: "Steve VK2SJA" <vk2sja@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 18, 2014 9:23 PM
Subject: [DrakeRadio] TR4 CO Alignment

> Hi All,

I always forget something. A counter may be useful for
approximate setting of the carrier oscillator but its exact
value depends on the filters in the set so don't try for
extreme precision. The exact frequency for best response
will vary a little from set to set.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19498. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 16:35:12 UTC
From: Garey Barrell
Topic: 19344 Message: 19498

Steve -

UNbalancing the BM is not the way to do it. That procedure was written for the 4 pole filters
in the TR-3. With the 8 pole filters in the later TR-4/C, you can't unbalance it enough with
the BAL pot to register.

The idea is that the filter passbands are roughly the shape of the letter "M". The CO sits in
the trough in the middle, and the USB and LSB audio passbands are the peaks on either side. If
the CO is too far one way, the audio of that filter will be 'muddy' or 'bassy', and the other
will be 'hissy' or 'shrill'.

An audio spectrum analyzer such as Spectrogram on your computer will work if you have a noise
source. The source can be as simple as a Zener diode that is starved for current.

You can check the placement by tuning through the Calibrator signal, and plotting the response
at some arbitrary S-Meter reading below the peak. Say your CAL signal is S-9 +10 db. Tune from
outside the highest tone, and tune toward zero beat. When the signal comes up to S-9, count the
audio frequency. Tune on through the peak until the signal drops to S-9 again, and count the
audio. The space between these two spots should be about 2.4 kHz or so, and the frequencies
counted will be the passband 'edges'. It SHOULD be roughly 300 to 2700 Hz. Then tune on
through Zero beat and up the 'other' side. Ideally you'll get the frequencies of about 300 to
2700 Hz. If not, tweak the CO until the two passbands are approximately equal.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
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> The manual suggests adjusting C130 while switching back and forth between
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> Question:- What is best/easiest way to totally unbalance a TR4 balanced
> modulator?
>
> Anyone got an even better method?
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> 73, Steve
>
>

19499. Re: [DrakeRadio] T-4XC idle current - finishing restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 16:45:47 UTC
From: Garey Barrell
Topic: 19467 Message: 19499

Doug -

Yes, R59 is the shunt. An Ohmite OX would be great, or a 'flameproof' (wirewound). These hold
their value MUCH better than the carbon composition types. Worst case a 1W CC would be ok.

As to your question, it would be best to replace it. But it's probably not going to drift too
much higher, and if the selected resistor (R59) can compensate it's probably ok.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug Coffman wrote:
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> Garey,
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> I’m using a pair of Ratheon 6JB6 tubes that were supposed to be a matched pair, go figure!
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> will match a set of tubes and put them in place; thanks for the information.
>
> By shunt resistor, I’m assuming you are referring to the meter shunt resistor? Would it make
> sense to correct the meter shunt resistor if it is out of tolerance first and then change the
> test resistor following that to correct the reading?
>
> Thanks for all the help,
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Tuesday, March 18, 2014 10:23 PM

> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] T-4XC idle current - finishing restoration
>
> Doug -
>
> Not good. This is part of the reason for 'matched' PA tubes.
>
> For best linearity, (important,) the PA tubes should be matched so that each draws 35 mA of
> Plate current at idle. These tubes are being operated at their maximum capability, and if one is
> a little low, the other has to make up the difference to equal the nominal 70 mA idle current.
> This current is important, because it sets the operating point of the tube at the most linear
> (low distortion) point, and if one is at 27 mA and the other is at 35 mA, only one is truly
> 'linear'.
>
> The Cathode resistors should be within 5% of each other and the PA tube current at bias should
> be as close as you can get them for best linearity. Tubes can be 'matched', by inserting them
> one at a time in the same socket of the transmitter, setting the BIAS for 35 mA for the first,
> hopefully 'good' tube. Then insert how ever many you have into the same socket, and record the
> current drawn by each one without changing the BIAS voltage. The two that are closest together
> in current are your matched pair.
>
> 61 mA is too low, for all the reasons stated above. The 'Test select' resistor (R13) is
> selected to make the meter read 70 mA when the actual current is 70 mA. If the shunt resistor
> has changed value, you may have to change it to get R13 'in range'.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com>>
>
> dcoffman@... <mailto:dcoffman@...> wrote:
> >
> >
> > I am finalizing the restoration of my first C-Line; prior to putting the cases back on the
> > transmitter, I decided to check the screen and grid resistors. I replaced R53 and R54 as they

> > were 16.0 and 16.75 ohms each and R50 and R51 as they were 74.01 and 74.70 ohms respectively.
> >
> >
> > For smiles and grins, I measured the voltage drop across R53 (.402) and R54 (.507) in tune
> > mode. R53 is 14.83 ohms and R54 is 14.85 ohms. This gives a current draw of 27.11 mA + 34.19
> > mA = 61.3 mA total. Now the first question is, is the current mismatch going to cause
> > a significant issue, 20.7% variance seems quite high. Secondly, I have the bias set for 70mA,
> > is the 61.3mA close enough or should I muck around and try to make the meter agree with my
> > measurements?
> >
> >
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>

19500. Re: [DrakeRadio] DRAKE TR-3 USB FILTER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 16:52:23 UTC
From: Garey Barrell
Topic: 19428 Message: 19500

Byron -

OK. I suspect those were retrofits. The soupcan wasn't too reliable early on.

The soupcan was used through the first 1500-2000 TR-4's before the sealed unit appeared. Doesn't seem likely that they had them during the TR-3 production? Maybe they were too optimistic on the first contract with Tedford for the soupcan!?! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Byron Tatum wrote:
>
>
>
> Regarding sealed filters in TR-3:
> I have had about 3 or 4 of the TR-3's with the dual sealed filter pass through my
> shop. There were 2 different styles of the filter as evidenced by the ones in early
TR-4's.
> Thanks, Byron
>

19501. RE: [DrakeRadio] T-4XC idle current - finishing restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 17:05:03 UTC
From: Doug Coffman
Topic: 19467 Message: 19501

Garey,

As always, much appreciated. I'll have a look at it this evening.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Wednesday, March 19, 2014 12:46 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T-4XC idle current - finishing restoration

Doug -

Yes, R59 is the shunt. An Ohmite OX would be great, or a 'flameproof' (wirewound). These hold
their value MUCH better than the carbon composition types. Worst case a 1W CC would be ok.

As to your question, it would be best to replace it. But it's probably not going to drift too
much higher, and if the selected resistor (R59) can compensate it's probably ok.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

Doug Coffman wrote:
>
>
> Garey,
>
> I'm using a pair of Ratheon 6JB6 tubes that were supposed to be a matched pair, go figure!
> You had posted to my response regarding matching 6JB6 tubes and I will proceed with that. I
> was hoping to use these tubes for the duration of their life before dipping into my Sylvania
> stock! I went through 12 Ohmite resistors to find a set that were matched for the cathodes,
> there is a pretty big variant between them; they are 10% however so not too surprising? I
> will match a set of tubes and put them in place; thanks for the information.
>
> By shunt resistor, I'm assuming you are referring to the meter shunt resistor? Would it make

> sense to correct the meter shunt resistor if it is out of tolerance first and then change the
> test resistor following that to correct the reading?
>
> Thanks for all the help,
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Garey Barrell
> *Sent:* Tuesday, March 18, 2014 10:23 PM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] T-4XC idle current - finishing restoration
>
> Doug -
>
> Not good. This is part of the reason for 'matched' PA tubes.
>
> For best linearity, (important,) the PA tubes should be matched so that each draws 35 mA of
> Plate current at idle. These tubes are being operated at their maximum capability, and if one is
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> This current is important, because it sets the operating point of the tube at the most linear
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> The Cathode resistors should be within 5% of each other and the PA tube current at bias should
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> 73, Garey - K4OAH
> Glen Allen, VA
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> <www.k4oah.com <http://www.k4oah.com%20%3chttp:/www.k4oah.com> <http://www.k4oah.com>>
>
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> > transmitter, I decided to check the screen and grid resistors. I replaced R53 and R54 as they
> > were 16.0 and 16.75 ohms each and R50 and R51 as they were 74.01 and 74.70 ohms respectively.
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> >
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19502. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 19:22:55 UTC
From: Richard Knoppow
Topic: 19344 Message: 19502

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, March 19, 2014 9:35 AM
Subject: Re: [DrakeRadio] TR4 CO Alignment

> Steve -
>
> UNbalancing the BM is not the way to do it. That
> procedure was written for the 4 pole filters
> in the TR-3. With the 8 pole filters in the later TR-4/C,
> you can't unbalance it enough with
> the BAL pot to register.
>
> The idea is that the filter passbands are roughly the
> shape of the letter "M". The CO sits in
> the trough in the middle, and the USB and LSB audio
> passbands are the peaks on either side. If
> the CO is too far one way, the audio of that filter will
> be 'muddy' or 'bassy', and the other
> will be 'hissy' or 'shrill'.
>

I decided to try this in practice. I did not use a scope but could hear the carrier on an adjacent receiver while transmitting into a dummy load. The carrier is quite loud enough to make adjustments BUT, and its a big one, the carrier frequency changes of course as one adjusts the carrier oscillator. That makes it a problem to judge any variation in carrier strength. Because the frequency is changing, although slightly, it moves the signal around in the receiver passband so one has to repeak. A bother. I compared a careful adjustment made by listening to noise on the TR-4 receiver with adjusting by looking at residual carrier with the BM unbalanced using the balance pot: result is about the same but judging noise is easier. I did do this adjustment in the past using a scope and it did work. Even though the residual carrier through the sideband filters is low it was enough to get a balance. My TR-4 has, I think, the 8 pole filters. The serial number is high enough and the filters are oblong cases painted blue. The performance in receiving is very good. I compared quality of transmission as best I could using the widest band on my AR-88. This is about 14 khz and quite flat. With the suppressed carrier centered there is no audible difference in quality between

the two filters. Unfortunately, the only microphone I have with the correct connector for the TR-4 is a D-104, which is somewhat shrill sounding. My T4XB was modified (by someone else) to use a conventional 1/4" plug and all other microphones are set up for this plug.
So, FWIW, although I used the residual carrier technique in the past to set the carrier oscillator the book method using the receiver seems to work fine. I suggest using a pair of high fidelity headphones to listen on although I had no trouble with the MS-4 speaker.
I used the same technique on my T4XB, which I think also has 8 pole filters, and it seems to work.
A brief additional note: if the carrier oscillator is adjusted at all do a carrier balance when finished because even a slight change in CO frequency will upset the balance. The BM in both the T4XB and TR-4 are excellent and have virtually complete nulls when balanced. I used the adjacent receiver to listen for the null. It goes right into the noise.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19503. Re: TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 20:07:09 UTC
From: Gerald Eberle
Topic: 19451 Message: 19503

Many thanks for all the input!

I will give you some feedback on your remarks and tips…

- Hum
Yes, I am using Koss headphones with a good and very loud bass response.
I have tighten most of the screws in the PS and TR4 and the screws on the transformer are as tight as possible and I don't want to go further with them as I am afraid off breaking them. The PS must have fallen on one corner from quit high outside of the cabinet, so I think there is some mechanical hum. What puzzles me is, that the hum is not amplified by the af-amplifier. But going that loud to overcome the hum will kill my ears definitely ;-)

- Keying
As I wrote before, with a hand key sidetone on the TR4 and the signal in a separate rx sounds ok.
So I had a look at the cmos4 and compared my original schematics with the newest one. There are differences and updates published and mine seems quit old.
Now as a start, after changing 2 resistors in the output circuit the cmos4 keys the TR4 fine and the sound on the separate rx is as with the hand key. But the sidetone is horrible choppy! It seems, that the cmos4 is not switching the 25v down to 0. As I have no other suitable keyer I will try it with a keying adapter.

Yes it was R192, not R142, that I have replaced and I will measure the +250V again and also test the wiring between the PS and TR4.

73, Gerald - HB9CEY

19504. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 20:14:17 UTC
From: Garey Barrell
Topic: 19344 Message: 19504

Richard -

I have rarely been able to get enough CO to move the Plate current meter on any of the later
transmitters/transceivers, (8-pole, separate filters,) even with BAL pot turned all the way
either way. It works fine on the soupcan filter rigs, and even the sealed 6-pole filter used
in the early TR-4s. Certainly a scope or receiver is sensitive enough to allow comparing the
two. The audio counter method is educational as well! :-)

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

Richard Knoppow wrote:
> ----- Original Message -----
> From: "Garey Barrell" <k4oah@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Wednesday, March 19, 2014 9:35 AM
> Subject: Re: [DrakeRadio] TR4 CO Alignment
>
>
>> Steve -
>>
>> UNbalancing the BM is not the way to do it. That
>> procedure was written for the 4 pole filters
>> in the TR-3. With the 8 pole filters in the later TR-4/C,
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>>
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>
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>
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>

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19505. Re: [DrakeRadio] Re: TR4CW keying

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 20:47:48 UTC
From: Garey Barrell
Topic: 19451 Message: 19505

Gerald -

There is no reason the CMOS4 should not key the Drake transmitters. The output is a 2N2222 transistor, which should pull the keying voltage down to ~ 100 millivolts. The TR-4C can be keyed with a finger across the key terminals, so if your keyer won't key the transceiver, it
probably won't key a keying adapter either! It's possible that you are getting RF into the keyer via the paddle leads. If those leads are unshielded, that's where I would start. RF chokes right where the keyer leads enter the cabinet may be necessary.

Measure the voltage on the key jack when keyed by the keyer. If more than 150 mV you may have a
bad keyer transistor or resistance in the internal jumper that selects between + and - keying.
Or possibly a leaky D1 diode. Other potential trouble spots would be a sketchy V2 or V6.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Gerald Eberle wrote:
> Many thanks for all the input!
>
> I will give you some feedback on your remarks and tips?
>
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> I have tighten most of the screws in the PS and TR4 and the screws on the transformer are as tight as possible and I don't want to go further with them as I am afraid off breaking them. The PS must have fallen on one corner from quit high outside of the cabinet, so I think there is some mechanical hum. What puzzles me is, that the hum is not amplified by the af-amplifier. But going that loud to overcome the hum will kill my ears definitely ;-)
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>

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>
> 73, Gerald - HB9CEY
>
>

19506. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 20:48:40 UTC
From: Richard Knoppow
Topic: 19344 Message: 19506

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, March 19, 2014 1:14 PM
Subject: Re: [DrakeRadio] TR4 CO Alignment

> Richard -
>
> I have rarely been able to get enough CO to move the Plate
> current meter on any of the later
> transmitters/transceivers, (8-pole, separate filters,)
> even with BAL pot turned all the way
> either way. It works fine on the soupcan filter rigs,
> and even the sealed 6-pole filter used
> in the early TR-4s. Certainly a scope or receiver is
> sensitive enough to allow comparing the
> two. The audio counter method is educational as well!
> :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
OK I think we have the clue about out difference. I
was not using the plate current or output but rather a
sensitive scope on a T splitter going to a dummy load (for
the original measurement) and listening to the spill over
from a dummy load on a nearby receiver. Either will respond
to very small signals. For adjusting the CO the scope is
better because of the change in frequency but for adjusting
the carrier null either will work with the edge going to the
receiver. I did not think to look at the plate current. I
don't have the TR-4 set up at the moment. I put it on line
instead of the B twins in my so-called shack. I just got
curious. I am sure I have the 8-pole filters in mine. I wish
my R4B had as good selectivity.
I can see where I must re-investigate this. As it
happens I am on vacation at the moment and my lady friend is
out of town so I can do it.
In fact, I have no trouble finding the sweet spot per
the book instructions despite having very poor hearing.
Also, BTW, these adjustments seem to be very stable.

--
Richard Knoppow
Los Angeles

WB6KBL
dickburk@...

19507. Re: [DrakeRadio] Re: Element for Turner 22x mic

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 21:00:51 UTC
From: Jim Shorney
Topic: 19466 Message: 19507

It could be any number of folks who have worked there over the years. Most of the Turner inventory has been gone for many years, before my time there. A likely suspect may be Evan Haydon, N0GMR. There was someone else up closer to Omaha that had some stuff too, but I don't know who he is.

73

-Jim
NU0C

On 19 Mar 2014 06:13:26 -0700, gbeat5@... wrote:

>An eBay reseller in Eastern Nebraska was selling entire trays of NOS (surplus) Turner ceramic (Hi-Z) and dynamic (Lo-Z) microphone elements. As I remember, they were in $15 to $25 range.
>Jim, NU0C may know that former employee from Telex/Turner plant (Lincoln, NE).
>greg, w9gb

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

19508. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 22:15:36 UTC
From: Mark Pilant
Topic: 19344 Message: 19508

Hi Steve.

> Anyone got an even better method?

I mentioned the method I used (in this forum) a while back when I was bring my TR-4 back to life. It does assume access to a modulated signal source.

What I did was set my (HP) RF signal generator to a frequency the TR-4 could receive and set it to AM modulate at about 700 Hz. With this, I simply switched between upper and lower sideband until the sounds were the same. (It is pretty amazing how most folks can tell even a slight difference.) When the two were the same, I knew the adjustment was as good as it was going to get.

With the audio spectrogram, it should even easier to actually see the difference. As long as the signal was modulated with a sine wave, I expect you could even hook a frequency counter up the to speaker output and check the frequency.

Back in the woodwork.

73

- Mark N1VQW

19509. Bandswitch mushiness

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 23:12:44 UTC
From: Steve Wedge
Topic: 19509 Message: 19509

I fixed the mushiness of my T-4X's bandswitch. Here's what I think caused it and how I fixed it.

On the T-4, T-4X, all TR-3's and TR-4's, as well as all the 4-Line receivers, you'll notice that the detent assembly is at the rear of the set. (The B-Line and C-Line transmitters have the detent at the front, so some parts of this discussion may not fully apply to it, but they're similar). I believe the detent problem I had could have been caused by shipping damage: the knob may have been pushed from the front hard enough to bend things in the back. I see no damage to the front panel, however, so who knows? The detent plate that screws into the back of the chassis should be absolutely flat, but it more resembled a potato chip! The circular piece of spring steel inside also was not bearing down enough on the ball bearing due to some bending in it and in the tabs that align it.

The detent assembly consists of five pieces, plus the mounting screws. From the rear, the circlip mounts in the groove to keep tension on the spring washer and plate assembly through the ball bearing and onto the detent plate's detents. The ball bearing is held in place laterally by a groove in the shaft plate. The plate doesn't come off: it appears that it was originally mounted to the shaft from the "front" side, then the shaft was crimped to prevent its sliding toward the front. When you turn the bandswitch, the ball bearing rides over a "hump" on the detent plate and rests in the "valley" between these humps at each band position. There are additional raised areas that prevent the bandswitch from travelling beyond the limits of the six band positions. The detents are felt when the ball falls into each "valley", keeping the bandswitch wafers centred.

If the tabs on the shaft plate get bent in the wrong direction, you'll not have enough tension on the ball bearing. If the detent plate is warped, you won't have enough tension on the ball bearing on some positions. If the spring "washer" is bent, you'll lose additional tension.

The trick is to carefully bend everything back to original. The detent plate must be flat, as does the spring "washer", when it's not under tension. Note also that the washer's holes are not centred: the shaft plate has pins on two of the tabs that must rest in those holes in order to hold it in place. Once assembled, spring tension holds the whole thing together.

To check and repair the assembly, do the following:

1.. Put the bandswitch to somewhere in the middle (7.0 is good on the T-4X). Push the bandswitch from the front of the set to remove tension from the circlip and remove the circlip from the groove at the rear of the shaft. The circlip is not spring steel but appears to be of soft metal that can be re-bent back when you reinstall it. Remove it from the back of the shaft using a screwdriver, being careful not to lose it.
2.. Mark the position of the detent plate to the chassis by drawing a line with a Sharpie on the plate and chassis. Trust me on this Remove the two mounting screws and pull the detent plate off the shaft. The ball bearing may fall out at this time. Keep everything in a cup as you take it apart.

3.. If it hasn't fallen out already, remove the ball bearing from its resting place in the slot of the shaft plate. You can now pass the shaft plate and spring washer through the hole in the back far enough to access the tabs with needle-nose pliers or screwdrivers, if necessary. From my observations, you'll be hard-pressed to get the entire rear portion of the shaft out. I suspect the Nylon bevel gear is glued on. Sure seems that way. You won't need to remove the whole thing anyway.
4.. Note where the spring washer is mounted onto the shaft plate. The shaft plate has two pins that engage the two holes in the washer. Note how the four tabs of the shaft plate are in relation to the washer: the washer is toward the front of the radio on the tab opposite the ball bearing and is toward the rear of the radio at the two pin locations. Remove the spring washer and check the tabs of the shaft plate to make sure they're not excessively bent and bend them back if needed.
5.. The spring washer should be flat when removed from the switch. Correct any bends.
6.. The detent plate should sit absolutely flat to the chassis. place it over the shaft and check for flatness without the spring washer in place. Bend any areas that are not flat so that it sits flat to the chassis.
7.. Everything should now be ready to reassemble. Place the spring washer back in position on the shaft plate, so that it is toward the front of the set on the un-holed tab and such that the pins in the shaft plate engage the holes in the washer. Turn the shaft so that it's 7.0 position. The slot of the shaft plate should be at 3 o'clock as viewed from the rear. It's important that the bandswitch is at a known position within its expected range of travel.
8.. Put a dab of general-purpose grease on the ball bearing and insert it in the slot of the shaft plate and against the rear of the spring washer.
9.. Install the detent plate on the shaft and be sure that it's aligned with the mark you left previously. Press onto the chassis and re-mount with the two slotted screws.
10.. Make sure the spring washer is still engaged in its holes and the ball bearing is still in place. Whilst pushing the bandswitch from the front of the rig, reinstall the circlip into the groove in the rear of the shaft and press back together with pliers.
11.. Test the bandswitch. It should stop with the pointer at either the 1.5-3.0 (Twins) or 80 (TR-3/TR-4) at CCW stop and the 28.5 (Twins) or the third 10 position at CW stop. Each position should have a clear detent and the switch wafers should be in their correct positions. If this is not the case, either the detent plate is 180 degrees out of position or it was installed with the shaft 180 degrees out of position.
Operation of the bandswitch should be close to normal. Mine is still a little lighter than "new" condition but is much improved.

This was a classic case of some mechanical sleuthing and application of good ole common-sense.

Not having a C-Line handy, I can only guess that the TR-4C appears to have a rear-mounted detent
Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

19510. AC-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-20 08:46:40 UTC
From: g4jss@tiscali.co.uk
Topic: 15715 Message: 19510

Thanks for the info, Steve.

73

Vic
G4JSS

19511. TR-4C Microphone Feedback

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-20 22:56:10 UTC
From: Whitebear1122
Topic: 19344 Message: 19511

I was on 75m SSB this morning with some friends. There was this annoying carrier in the background for the longest time. I figured some clown was taking all day to tune up. Nope, I discovered that it was coming from a live microphone and feedback from the speaker. I disconnected the mic and the 'carrier" went away. I was using a D-104. Funny huh? I will be perusing the K4OAH TR-4 CD to look over the schematic. Just though I'd share this oddball observation :)
73, Scott WA9WFA

19512. Re: [DrakeRadio] TR-4C Microphone Feedback

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-20 23:07:03 UTC
From: Garey Barrell
Topic: 19344 Message: 19512

Check the IF neutralization.......

Garey - K4OAH
Glen Allen, VA

On Mar 20, 2014, at 6:56 PM, Whitebear1122 <whitebear1122@...> wrote:

> I was on 75m SSB this morning with some friends. There was this annoying carrier in the background for the longest time. I figured some clown was taking all day to tune up. Nope, I discovered that it was coming from a live microphone and feedback from the speaker. I disconnected the mic and the 'carrier" went away. I was using a D-104. Funny huh? I will be perusing the K4OAH TR-4 CD to look over the schematic. Just though I'd share this oddball observation :)
> 73, Scott WA9WFA
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

19513. External Dual Digital DDS VFIO for the TR7 / TR7A Radios

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 01:14:13 UTC
From: Joe Burch
Topic: 19513 Message: 19513

Hello folks.

Just wanted to let you all know that I have only two DDS VFO boards left with no immediate plans to purchase any others. One is fully populated and up for sale on eBay. The other is just a bare bones board.

FYI - here's a couple of pictures of a DDS VFO that I just built for my TR7, just to show how easily one can be constructed. It's a 'plug and play' device.

http://www.k3jls.net/tr7_controller.html

The same technique could be used for virtually any digital display equipped radio using a 5 to 5.5 Mhz VFO.

If there is any interest, please e-mail me at k3jls@verizon.net

73's - Joe

19514. Re: [DrakeRadio] External Dual Digital DDS VFIO for the TR7 / TR7A Radios

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 05:18:26 UTC
From: Henry L. Dorkin
Topic: 19514 Message: 19514

This message was originally HTML formatted. View in a HTML capable client to see the original version.\r\n\r\n Joe - interested in the fully populated board but cannot find it on e-bay. Help?

Tnx - Hank WM1V

---- Original Message ----
From: "Joe Burch" k3jls@verizon.net
Sent: 3/20/2014 9:17:29 PM
To: "drakeradio@yahoogroups.com" drakeradio@yahoogroups.com
Subject: [DrakeRadio] External Dual Digital DDS VFIO for the TR7 / TR7A Radios

Hello folks.

Just wanted to let you all know that I have only two DDS VFO boards left with no immediate plans to purchase any others. One is fully populated and up for sale on eBay. The other is just a bare bones board.

FYI - here's a couple of pictures of a DDS VFO that I just built for my TR7, just to show how easily one can be constructed. It's a 'plug and play' device.

http://www.k3jls.net/tr7_controller.html

The same technique could be used for virtually any digital display equipped radio using a 5 to 5.5 Mhz VFO.

If there is any interest, please e-mail me at k3jls@verizon.net

73's - Joe

19515. WTB: Original manual for Drake TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 13:31:56 UTC
From: Joe W2KJ
Topic: 19515 Message: 19515

Howdy Fellow Drakesters:

Just bought a TR7 and would like to buy an original manual for it.

Anyone have an extra manual that is excess to their needs??

Many thanks.

73, Joe W2KJ
TR7, TR4CW/RIT, C-Line

19516. RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 17:59:09 UTC
From: Leon Zebrick
Topic: 19516 Message: 19516

I have a problem with the PTO in my TR7 and I'm wondering if a salvage PTO from a RV7 would serve as an exact, drop-in replacement. I'm considering an RV7 for this purpose, then building in a DDS into the vacated RV7 housing.
N5LAZ

19517. WTB: Six Drake 2C/2NT Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 17:57:14 UTC
From: <soffrind@...>
Topic: 19517 Message: 19517

Hi--I am looking to replace some mismatched knobs on my 2-Series twins and I need six of the round knobs with the silver ring insert that were only used on the 2-series. Please check your parts boxes!! Many thanks,
David Soffrin

19518. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 18:18:16 UTC
From: Garey Barrell
Topic: 19516 Message: 19518

Leon -

I don't know for certain, because I've never tried it. The PTOs are electrically identical, and I can't see any reason why the mechanics would be any different.

My question is, WHY? PTOs are generally extremely reliable and relatively easy to fix. A LOT
of problems can be traced directly to mechanical or soldering problems. They are easy to access
and work on. ??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
>
>
> I have a problem with the PTO in my TR7 and I'm wondering if a salvage PTO from a RV7 would
> serve as an exact, drop-in replacement. I'm considering an RV7 for this purpose, then
> building in a DDS into the vacated RV7 housing.
> N5LAZ
>
>
>

19519. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 18:57:54 UTC
From: Leon Zebrick
Topic: 19516 Message: 19519

Garey, I first noticed my PTO problem when monitoring CW. Intermittent frequency jump of about 20 hz or so. Sometimes back and forth in frequency, several seconds between. Seems a little more pronounced with a well warmed radio. I have been through the PTO. Cleaning, lubrication, ground strap inspection, very close visual inspection of each solder joint, then retouching each one. Nothing noted in visual. No change with refloating all those joints. I monitored the PTO directly with a secondary receiver to confirm it as source. With PTO operating (shield off) and while monitoring its beat note on a secondary receiver, I attempted to find a mechanical issue poking around with a long non- conductive tool. Nothing found. The PTO is super clean, springs in place, and very smooth mechanically. I suspect a component, but I have no idea which. Someone has related a similar problem, claiming a silver mica capacitor, but they do not
remember which one it was.   I'm open to shotgunning, but it might just be easier to find a salvage unit.

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, March 21, 2014 1:18 PM
Subject: Re: [DrakeRadio] RV7 Remote VFO Question

Leon -

I don't know for certain, because I've never tried it. The PTOs are electrically identical, and I can't see any reason why the mechanics would be any different.

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Leon Zebrick wrote:
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> I have a problem with the PTO in my TR7 and I'm wondering if a salvage PTO from a RV7 would
> serve as an exact, drop-in replacement. I'm considering an RV7 for this purpose, then
> building in a DDS into the vacated RV7 housing.
> N5LAZ
>

>
>

19520. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 19:48:06 UTC
From: Leon Zebrick
Topic: 19516 Message: 19520

I also monitored supply voltages with a scope. Stable.

Sent from my iPhone

On Mar 21, 2014, at 1:57 PM, Leon Zebrick <lzebrick@...> wrote:

> Garey, I first noticed my PTO problem when monitoring CW. Intermittent frequency jump of about 20 hz or so. Sometimes back and forth in frequency, several seconds between. Seems a little more pronounced with a well warmed radio. I have been through the PTO. Cleaning, lubrication, ground strap inspection, very close visual inspection of each solder joint, then retouching each one. Nothing noted in visual. No change with refloating all those joints. I monitored the PTO directly with a secondary receiver to confirm it as source. With PTO operating (shield off) and while monitoring its beat note on a secondary receiver, I attempted to find a mechanical issue poking around with a long non- conductive tool. Nothing found. The PTO is super clean, springs in place, and very smooth mechanically. I suspect a component, but I have no idea which. Someone has related a similar problem, claiming a silver mica capacitor, but they do not remember which one it was. I'm open to shotgunning, but it might just be easier to find a salvage unit.
>
>
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, March 21, 2014 1:18 PM
> Subject: Re: [DrakeRadio] RV7 Remote VFO Question
>
>
> Leon -
>
> I don't know for certain, because I've never tried it. The PTOs are electrically identical,
> and I can't see any reason why the mechanics would be any different.
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> My question is, WHY? PTOs are generally extremely reliable and relatively easy to fix. A LOT
> of problems can be traced directly to mechanical or soldering problems. They are easy to access
> and work on. ??
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> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> <www.k4oah.com>
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> Leon Zebrick wrote:

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> > N5LAZ
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19521. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 19:54:29 UTC
From: Leon Zebrick
Topic: 19516 Message: 19521

Sorry one other thing. I isolated the PTO by lifting its output wire. Problem still apparent on monitor receiver.

Sent from my iPhone

On Mar 21, 2014, at 2:48 PM, Leon Zebrick <lzebrick@...> wrote:

> I also monitored supply voltages with a scope. Stable.
>
> Sent from my iPhone
>
> On Mar 21, 2014, at 1:57 PM, Leon Zebrick <lzebrick@...> wrote:
>
>>
>> Garey, I first noticed my PTO problem when monitoring CW. Intermittent frequency jump of about 20 hz or so. Sometimes back and forth in frequency, several seconds between. Seems a little more pronounced with a well warmed radio. I have been through the PTO. Cleaning, lubrication, ground strap inspection, very close visual inspection of each solder joint, then retouching each one. Nothing noted in visual. No change with refloating all those joints. I monitored the PTO directly with a secondary receiver to confirm it as source. With PTO operating (shield off) and while monitoring its beat note on a secondary receiver, I attempted to find a mechanical issue poking around with a long non- conductive tool. Nothing found. The PTO is super clean, springs in place, and very smooth mechanically. I suspect a component, but I have no idea which. Someone has related a similar problem, claiming a silver mica capacitor, but they do not remember which one it was. I'm open to shotgunning, but it might just be easier to find a salvage unit.
>>
>>
>> From: Garey Barrell <k4oah@...>
>> To: DrakeRadio@yahoogroups.com
>> Sent: Friday, March 21, 2014 1:18 PM
>> Subject: Re: [DrakeRadio] RV7 Remote VFO Question
>>
>>
>> Leon -
>>
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>> > N5LAZ
>> >
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19522. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 20:04:25 UTC
From: Garey Barrell
Topic: 19516 Message: 19522

Leon -

Possibly..... they can be difficult to dig out. Have you monitored the +10 VDC across the Tantalum cap? A scope or DMM here and/or on the RIT line (terminal out the side of the can) might correlate.

If you trash it, I'd like to have it to troubleshoot.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
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>
>
> ⋆From:⋆ Garey Barrell <k4oah@...>
> ⋆To:⋆ DrakeRadio@yahoogroups.com
> ⋆Sent:⋆ Friday, March 21, 2014 1:18 PM
> ⋆Subject:⋆ Re: [DrakeRadio] RV7 Remote VFO Question
>
> Leon -

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> I don't know for certain, because I've never tried it. The PTOs are electrically identical,
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> > N5LAZ
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19523. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 20:11:27 UTC
From: Garey Barrell
Topic: 19516 Message: 19523

The Tantalum is shielded by the 100 ohm resistor. FETs sometimes exhibit this behavior as well. Check Source voltage.

We have two different objectives Leon.... I want to know 'what' and 'why' it failed, you just
want your radio to hold still!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Leon Zebrick wrote:
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> Sent from my iPhone
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>> *From:* Garey Barrell <k4oah@... <mailto:k4oah@...>>
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Sent:* Friday, March 21, 2014 1:18 PM
>> *Subject:* Re: [DrakeRadio] RV7 Remote VFO Question
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>> Leon -
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>> > building in a DDS into the vacated RV7 housing.
>> > N5LAZ
>> >

19524. Buying from Garey Barrell K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 21:36:15 UTC
From: Joe W2KJ
Topic: 19524 Message: 19524

Howdy Fellow Drakesters:

I recently purchased a TR7, PS7, RV7 and MS7 from Garey, K4OAH.

He described the units as being in excellent condition.

What arrived are units that are in MINT condition and all working FB.

Most folks overrate their gear...Garey does not.

If you buy something from Garey it will be as described or better, work FB and be a good value.

I'm enjoying the new Drake gear and want to thank Garey for selling me such fine equipment...many thanks Garey.

73, Joe W2KJ
TR7, TR4CW/RIT, C-Line

19525. Re: [DrakeRadio] Buying from Garey Barrell K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 21:47:10 UTC
From: Jim Lowman
Topic: 19524 Message: 19525

Wow, I must have missed that posting somewhere.

I would expect no less from Garey.

73 de Jim - AD6CW

On 3/21/2014 2:36 PM, Joe W2KJ wrote:
> Howdy Fellow Drakesters:
>
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>
> 73, Joe W2KJ
> TR7, TR4CW/RIT, C-Line
>

19526. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 22:32:42 UTC
From: Joe Pyles
Topic: 19516 Message: 19526

The PTO is exactly the same in the RV7 and the
TR7 but before you do that have you disconnected
the RIT wire on the PTO to be sure that there is
not a minor voltage change in the RIT circuit causing the frequency change?
The radio will function fine with the RIT wire
unhooked. There is an MC14016 chip on the parent
board that steers voltage for the RIT circuit and
they sometimes get flakey and that could cause the problem.

73, Joe KC9LAD

At 04:11 PM 3/21/2014, you wrote:
>
>
>The Tantalum is shielded by the 100 ohm
>resistor. FETs sometimes exhibit this behavior as
>well. Check Source voltage.
>
>We have two different objectives Leon.... I want
>to know 'what' and 'why' it failed, you just
>want your radio to hold still!! :-)
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>Leon Zebrick wrote:
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> smooth mechanically.I suspect a component, but I have
> >> no idea which.Someone has related a similar
> problem, claiming a silver mica capacitor, but
> >> they do not remember which one it was. I'm
> open to shotgunning, but it might just be easier
> >> to find a salvage unit.
> >>
> >>
> >> *From:* Garey Barrell <k4oah@... <mailto:k4oah@...>>
> >> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> >> *Sent:* Friday, March 21, 2014 1:18 PM
> >> *Subject:* Re: [DrakeRadio] RV7 Remote VFO Question
> >>
> >> Leon -
> >>
> >> I don't know for certain, because I've never
> tried it. The PTOs are electrically identical,
> >> and I can't see any reason why the mechanics would be any different.
> >>
> >> My question is, WHY? PTOs are generally
> extremely reliable and relatively easy to fix. A LOT
> >> of problems can be traced directly to
> mechanical or soldering problems. They are easy to access
> >> and work on. ??
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com <http://www.k4oah.com>>
> >>
> >> Leon Zebrick wrote:
> >> >
> >> >
> >> > I have a problem with the PTO in my TR7
> and I'm wondering if a salvage PTO from a RV7 would
> >> > serve as an exact, drop-in replacement.
> I'm considering an RV7 for this purpose, then

> >> > building in a DDS into the vacated RV7 housing.
> >> > N5LAZ
> >> >
>
>

19527. Re: [DrakeRadio] Buying from Garey Barrell K4OAH

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 22:54:53 UTC
From: David Stinson
Topic: 19524 Message: 19527

Thank YOU, Joe, for telling us about Garey.
We don't hear enough about the "good guys."

19528. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-21 23:02:42 UTC
From: Steve Wedge
Topic: 19516 Message: 19528

Silver mica cap in the tuned circuit.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 21, 2014, at 2:57 PM, Leon Zebrick <lzebrick@...> wrote:
>
> Garey, I first noticed my PTO problem when monitoring CW. Intermittent frequency jump of about 20 hz or so. Sometimes back and forth in frequency, several seconds between. Seems a little more pronounced with a well warmed radio. I have been through the PTO. Cleaning, lubrication, ground strap inspection, very close visual inspection of each solder joint, then retouching each one. Nothing noted in visual. No change with refloating all those joints. I monitored the PTO directly with a secondary receiver to confirm it as source. With PTO operating (shield off) and while monitoring its beat note on a secondary receiver, I attempted to find a mechanical issue poking around with a long non- conductive tool. Nothing found. The PTO is super clean, springs in place, and very smooth mechanically. I suspect a component, but I have no idea which. Someone has related a similar problem, claiming a silver mica capacitor, but they do not remember which one it was. I'm open to shotgunning, but it might just be easier to find a salvage unit.
>
>
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, March 21, 2014 1:18 PM
> Subject: Re: [DrakeRadio] RV7 Remote VFO Question
>
>
> Leon -
>
> I don't know for certain, because I've never tried it. The PTOs are electrically identical,
> and I can't see any reason why the mechanics would be any different.
>
> My question is, WHY? PTOs are generally extremely reliable and relatively easy to fix. A LOT
> of problems can be traced directly to mechanical or soldering problems. They are easy to access
> and work on. ??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

>
> Leon Zebrick wrote:
> >
> >
> > I have a problem with the PTO in my TR7 and I'm wondering if a salvage PTO from a RV7 would
> > serve as an exact, drop-in replacement. I'm considering an RV7 for this purpose, then
> > building in a DDS into the vacated RV7 housing.
> > N5LAZ
> >
> >
> >
>
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>

19529. TR-7 parent board tantalum cap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 01:07:31 UTC
From: <mark@...>
Topic: 19529 Message: 19529

My TR-7 was starting to behave strangely and since it had been a couple of years since I had done the pull the boards, Deox and reseat routine, I figured it was time. Upon visual inspection, I noticed that one of the two tantalum caps on the bottom of the parent board had one of its legs blown off. Other than the tantalum being near an IED, what might be a cause for this?

MARK - K6MJD - SAN DIEGO

19530. Re: [DrakeRadio] TR-7 parent board tantalum cap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 02:05:46 UTC
From: Evan Rolek
Topic: 19529 Message: 19530

Failure of the tantalum cap due to age and/or over voltage...there could be other causes...

-----Original Message-----
From: mark <mark@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Mar 21, 2014 9:07 pm
Subject: [DrakeRadio] TR-7 parent board tantalum cap

My TR-7 was starting to behave strangely and since it had been a couple of years since I had done the pull the boards, Deox and reseat routine, I figured it was time. Upon visual inspection, I noticed that one of the two tantalum caps on the bottom of the parent board had one of its legs blown off. Other than the tantalum being near an IED, what might be a cause for this?

MARK - K6MJD - SAN DIEGO

19531. Re: [DrakeRadio] TR4 CO Alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 04:36:12 UTC
From: Steve VK2SJA
Topic: 19344 Message: 19531

Hi All,

A very big thank-you to everyone that replied! It was very educational.

I decided to go with the audio-spectrum sweep idea to align the filters. Having started by positioning them by ear as best I could.

It took a day or so to collect, setup and learn how to use the required software. I'm using Linux this way. So at first I looked at Baudline

http://www.baudline.com/

This is some seriously powerful software. But it's complexity beat me initially. So then I found a Python program written by pa2ohh. Python runs happily under Windows or Linux. The program is called (not surprisingly) "AUDIO SPECTRUM ANALYZER".

http://www.qsl.net/pa2ohh/11sa.htm

It is not nearly as powerful as Baudline but by keeping things simple and because it was written by an Amateur with sweeping crystal filter responses in mind. I was able to get this to 'fly' pretty quickly.

I have uploaded a two screen snapshots into the photo area of this group under the Album VK2SJA. One photo of a sweep of each filter. I called the filters 'X' being the Sideband 'X' position on the TR-4C. And the other filter I called 'Y'.

From these sweeps I can see that I am close but there is room for improvement. I was also a little surprised by the amount of ripple apparent in the passband.

Anyway if anyone wants to have a look at the photo's and make comment I'm all ears.

Thanks again everyone. Learning new tricks all the time.

However I've hit another 'snag' in my TR-4C restoration process. So further tweaks of the CO will have to wait for the moment. I'll cry for help in another post. :-)

73, Steve.

19532. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 04:36:51 UTC
From: Jim Shorney
Topic: 19516 Message: 19532

Leon, you need to do as Joe suggested and check the 4016 on the parent board. This is a known issue. These ICs are strange beasties and can fail in some odd ways. It is in circuit whether the RIT is on or off. If you don't eliminate it first as the source of the problem you may have the same problem with a replacement PTO.

73

-Jim
NU0C

On Fri, 21 Mar 2014 14:48:06 -0500, Leon Zebrick wrote:

>I'm open to shotgunning, but it might just be easier to find a salvage unit.

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19533. TR-4C Alignment. Bad 28 28.5 29

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 04:44:12 UTC
From: Steve VK2SJA
Topic: 19529 Message: 19533

Hi All,

Well I have hit another road-bump on the way to restoring my TR-4C to full health.

Started the 'Alignment' procedures today. Quickly discovered why I have low TX output on the 28, 28.5 and 29.1 bands.

When doing the "5-10 INJECTION CRYSTAL OSCILLATOR" adjustments everything was fine until I hit 29.1 MHz. While doing the adjustment (having to do it with a DMM) I notice that the voltage was *positive* not negative!

I then discovered that the Crystal Calibrator signal on these same bands is *severely* distorted! Things are far from linear somewhere!!

Any ideas for where I should start looking?

Thanks!

73, Steve.

19534. Re: [DrakeRadio] TR-4C Alignment. Bad 28 28.5 29

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 05:40:03 UTC
From: Steve VK2SJA
Topic: 19529 Message: 19534

Correction.

On 21 I also have slightly distorted crystal calibrator tone. Not nearly
as bad as 28, 28.5 and 28.

100KHz marker tone sounds fine on 3.5, 7 and 14.

73, Steve

> Hi All,
>
> Well I have hit another road-bump on the way to restoring my TR-4C to full
> health.
>
> Started the 'Alignment' procedures today. Quickly discovered why I have
> low TX output on the 28, 28.5 and 29.1 bands.
>
> When doing the "5-10 INJECTION CRYSTAL OSCILLATOR" adjustments everything
> was fine until I hit 29.1 MHz. While doing the adjustment (having to do it
> with a DMM) I notice that the voltage was *positive* not negative!
>
> I then discovered that the Crystal Calibrator signal on these same bands
> is *severely* distorted! Things are far from linear somewhere!!
>
> Any ideas for where I should start looking?
>
> Thanks!
>
> 73, Steve.
>
>
>
>
>
>
>

19535. Re: [DrakeRadio] Shure microphones

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-19 15:45:57 UTC
From: Richard Knoppow
Topic: 19461 Message: 19535

----- Original Message -----
From: "Jim Shorney" <jshorney@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 18, 2014 8:00 PM
Subject: Re: [DrakeRadio] Shure microphones

>
> I can't add much to that. Plug it in and try it out!
>
> 73
>
> -Jim
> NU0C
>
I can't add much either. Communications mics are not
high fidelity, they are supposed to maximise intelligibility
of signals under noise conditions. See what sort of signal
reports you get. The variable reluctance or magnetic
mechanism used by Shure is very reliable and rugged, not
sensitive to heat or being dropped. Shure is still in
business. I think they have a collection of data on
discontinued mics on their web site.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19536. Re: L7 fixed Mica Capacitors

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 13:42:07 UTC
From: <wb0hhm@...>
Topic: 19458 Message: 19536

Thanks Guys for the reply on the Capacitors
I will check the wiring again , the schematic didn't show the switch positions very will . was
hard to follow.

I don't know if they are all bad , most likely not , Just seems like if I have it apart change all three if I find some and they are to expensive .

I got at the area by taking the part of the tank coil out on top of the band switch , was that the correct way or is there a easier way ? taking the bottom off would require taking mounting screws off the plate, loading capacitors and tank coils etc.

Ray WB0HHM

19537. Re: [DrakeRadio] TR-7 parent board tantalum cap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 14:39:03 UTC
From: Jim Shorney
Topic: 19529 Message: 19537

Tantalums notoriously do not like surges. They can react violently.

73

-Jim
NU0C

On Fri, 21 Mar 2014 22:05:46 -0400 (EDT), Evan Rolek wrote:

>Failure of the tantalum cap due to age and/or over voltage...there could be other causes...
>
>-----Original Message-----
>From: mark <mark@...>
>To: DrakeRadio <DrakeRadio@yahoogroups.com>
>Sent: Fri, Mar 21, 2014 9:07 pm
>Subject: [DrakeRadio] TR-7 parent board tantalum cap
>

>My TR-7 was starting to behave strangely and since it had been a couple of years since I had done the pull the boards, Deox and reseat routine, I figured it was time. Upon visual inspection, I noticed that one of the two tantalum caps on the bottom of the parent board had one of its legs blown off. Other than the tantalum being near an IED, what might be a cause for this?
>
>MARK - K6MJD - SAN DIEGO
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19538. Re: TR-7 parent board tantalum cap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 17:38:47 UTC
From: <mark@...>
Topic: 19529 Message: 19538

I cannot find these two caps in the service manual. I can see them in the photo of the underside of the parent board, but I don't see them in the schematic or in the parts list.

The tantalums are from the top down; brown, black, blue. I don't see a multiplier dot. They have a green stripe down on side. I'm guessing 10uf 5% @ 20v? Am I close?

Are these intended to be bypass caps on the 10v return?

MARK - K6MJD - SAN DIEGO

---In DrakeRadio@yahoogroups.com, <jshorney@...> wrote :

Tantalums notoriously do not like surges. They can react violently.

73

-Jim
NU0C

On Fri, 21 Mar 2014 22:05:46 -0400 (EDT), Evan Rolek wrote:

>Failure of the tantalum cap due to age and/or over voltage...there could be other causes...
>
>-----Original Message-----
>From: mark <mark@... mailto:mark@...>
>To: DrakeRadio <DrakeRadio@yahoogroups.com mailto:DrakeRadio@yahoogroups.com>
>Sent: Fri, Mar 21, 2014 9:07 pm
>Subject: [DrakeRadio] TR-7 parent board tantalum cap
>

>My TR-7 was starting to behave strangely and since it had been a couple of years since I had done the pull the boards, Deox and reseat routine, I figured it was time. Upon visual inspection, I noticed that one of the two tantalum caps on the bottom of the parent board had one of its legs blown off. Other than the tantalum being near an IED, what might be a cause for this?
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>MARK - K6MJD - SAN DIEGO
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19539. Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 17:56:46 UTC
From: <rochep@...>
Topic: 19539 Message: 19539

I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
paul

19540. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 18:02:54 UTC
From: vacuuminded2@...
Topic: 19539 Message: 19540

An AC-4 is an AC-4 is an AC-4. And almost an AC-3.

The little 6-32 threaded feet on the power supply are actually what holds it into the cabinet. Simply unscrew them, slide the supply into your MS-4, and re-install the feet through the 4 holes provided in the bottom. Easy Peasy.

Regards,
Chris

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 12:56 PM, <rochep@...> wrote:

> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
> paul
>
>

19541. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 18:11:44 UTC
From: Dan Galligan
Topic: 19539 Message: 19541

I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Mar 22, 2014, at 12:56, rochep@... wrote:
>
>
>
> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
> paul
>
>

19542. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 18:27:13 UTC
From: vacuuminded2@...
Topic: 19539 Message: 19542

Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)

The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.

TR-4 transceiver $599.95
MS-4 matching speaker $22.00
RV-4 remote VFO $110.00
AC-4 power supply $99.95
DC-4 power supply $110.00
34PNB noise blanker $100.00

Regards,
Chris

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:

> I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
> Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
> Samuel Adams-Patriot and Brewer
>
>
> Sent from my iPad.
>
> On Mar 22, 2014, at 12:56, rochep@... wrote:
>
>> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with

speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
>> paul
>
>

19543. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 18:54:02 UTC
From: Dan Galligan
Topic: 19539 Message: 19543

Chris,
The cabinets, for the AC-4, were sold separately? I've not heard of such a thing. I know that the MS-4, and AC-4/AC-3, were sold separately. But, I thought that the AC-3's were sold without a top cover, and the AC-4's were. I certainly never heard of either one being sold without a bottom cover. How would it attach to the MS-4 case, then? The one I sold was missing both the top and bottom panels, but, since I found a local fellow here, who had the burned up AC-4, who was willing to give it to me, I removed the two covers and mailed them to my buyer, since I knew he would need at least the bottom cover, to attach it to the MS-4, that was included in the deal.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Mar 22, 2014, at 13:27, vacuuminded2@... wrote:
>
>
>
> Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)
>
> The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.
>
> TR-4 transceiver $599.95
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> AC-4 power supply $99.95
> DC-4 power supply $110.00
> 34PNB noise blanker $100.00
>
> Regards,
> Chris
>
>
> Sent from my outdated iPhone wireless thingy

>
>> On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:
>>
>> I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
>> Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.
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>> 73,
>> Dan
>> W3RXO/W5
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>> Samuel Adams-Patriot and Brewer
>>
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>> Sent from my iPad.
>>
>>> On Mar 22, 2014, at 12:56, rochep@... wrote:
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>>> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
>>> paul
>
>
>

19544. For Sale: Drake TR4C, AC4 and MS4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 19:05:13 UTC
From: Joe W2KJ
Topic: 19544 Message: 19544

Howdy Fellow Drakesters:

I offer for sale a Drake TR4C transceiver, AC4 power supply and MS4 speaker.

The TR4C is a solid 9...the AC4 and MS4 are also in very good condition.

Full RF power output with 3 Sylvania 6JB6 tubes....all tube sockets have been cleaned with DeOxit5 and weak or bad tubes have been replaced.

The receiver sensitivity in this TR4C is excellent.

Package includes an excellent copy of the manual from a commercial vendor.

Will ship the TR4C, AC4 and MS4 CONUS only for $600.

73, Joe W2KJ

19545. FS/FT TR-6 Package

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 20:31:07 UTC
From: Saad Mahaini
Topic: 19545 Message: 19545

Hello,

I have a TR-6 with AC-4 that i like to sell $875 shipped. May consider trades also.

73 Saad N5FF

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2247 / Virus Database: 3722/6731 - Release Date: 03/22/14

19546. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 20:34:01 UTC
From: vacuuminded2@...
Topic: 19539 Message: 19546

Oh you're talking about the steel cover that is sometimes missing from the AC-4. Yes all AC-4 power supplies had that cover originally, AC-3 supplies did not have one, unless they were added late in their production.

I think Paul was referring to the speaker "cabinet" and not that cover.

Chris

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 1:54 PM, Dan Galligan <w3rxo@...> wrote:

> Chris,
> The cabinets, for the AC-4, were sold separately? I've not heard of such a thing. I know that the MS-4, and AC-4/AC-3, were sold separately. But, I thought that the AC-3's were sold without a top cover, and the AC-4's were. I certainly never heard of either one being sold without a bottom cover. How would it attach to the MS-4 case, then? The one I sold was missing both the top and bottom panels, but, since I found a local fellow here, who had the burned up AC-4, who was willing to give it to me, I removed the two covers and mailed them to my buyer, since I knew he would need at least the bottom cover, to attach it to the MS-4, that was included in the deal.
>
> 73,
> Dan
> W3RXO/W5
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> Samuel Adams-Patriot and Brewer
>
>
> Sent from my iPad.
>
> On Mar 22, 2014, at 13:27, vacuuminded2@yahoo.com wrote:
>
>> Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)
>>
>> The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.
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>> TR-4 transceiver $599.95

>> MS-4 matching speaker $22.00
>> RV-4 remote VFO $110.00
>> AC-4 power supply $99.95
>> DC-4 power supply $110.00
>> 34PNB noise blanker $100.00
>>
>> Regards,
>> Chris
>>
>>
>> Sent from my outdated iPhone wireless thingy
>>
>> On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:
>>
>>>
>>> I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
>>> Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.
>>>
>>> 73,
>>> Dan
>>> W3RXO/W5
>>> Evening Shade, OK
>>> EM25no
>>>
>>> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
>>> Samuel Adams-Patriot and Brewer
>>>
>>>
>>> Sent from my iPad.
>>>
>>> On Mar 22, 2014, at 12:56, rochep@... wrote:
>>>
>>>> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
>>>> paul
>
>

19547. FS/FT CC-1 Package

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 20:40:04 UTC
From: Saad Mahaini
Topic: 19547 Message: 19547

Hello,

I have a CC-1 Console with the SC-2 (2M Converter) and CPS-1 (Power Supply) modules that i like to sell $275 shipped. May consider trades also.

73 Saad N5FF

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2247 / Virus Database: 3722/6731 - Release Date: 03/22/14

19548. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 21:08:32 UTC
From: Paul Kraemer
Topic: 19539 Message: 19548

FWIW
It is an aluminum cover on top of the supply and a steel bottom cover on the chassis
All supplies had a bottom cover, only AC-4 had a top cover
Either supply fits in an MS-4 case
Paul K0UYA

From: vacuuminded2@...
Sent: Saturday, March 22, 2014 3:34 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Cabinet for AC4 PS?

Oh you're talking about the steel cover that is sometimes missing from the AC-4. Yes all AC-4 power supplies had that cover originally, AC-3 supplies did not have one, unless they were added late in their production.

I think Paul was referring to the speaker "cabinet" and not that cover.

Chris

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 1:54 PM, Dan Galligan <w3rxo@mac.com> wrote:

Chris,
The cabinets, for the AC-4, were sold separately? I've not heard of such a thing. I know that the MS-4, and AC-4/AC-3, were sold separately. But, I thought that the AC-3's were sold without a top cover, and the AC-4's were. I certainly never heard of either one being sold without a bottom cover. How would it attach to the MS-4 case, then? The one I sold was missing both the top and bottom panels, but, since I found a local fellow here, who had the burned up AC-4, who was willing to give it to me, I removed the two covers and mailed them to my buyer, since I knew he would need at least the bottom cover, to attach it to the MS-4, that was included in the deal.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

On Mar 22, 2014, at 13:27, vacuuminded2@... wrote:

Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)

The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.

TR-4 transceiver $599.95
MS-4 matching speaker $22.00
RV-4 remote VFO $110.00
AC-4 power supply $99.95
DC-4 power supply $110.00
34PNB noise blanker $100.00

Regards,
Chris

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:

I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.

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Dan
W3RXO/W5
Evening Shade, OK
EM25no

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Samuel Adams-Patriot and Brewer

Sent from my iPad.

On Mar 22, 2014, at 12:56, rochep@... wrote:

I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
paul

19549. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 21:10:13 UTC
From: vacuuminded2@...
Topic: 19539 Message: 19549

Ok my bad on aluminum versus steel. I'm not home and remembered wrong.

C

Sent from my outdated iPhone wireless thingy

On Mar 22, 2014, at 4:08 PM, "Paul Kraemer" <elespe@...> wrote:

> FWIW
> It is an aluminum cover on top of the supply and a steel bottom cover on the chassis
> All supplies had a bottom cover, only AC-4 had a top cover
> Either supply fits in an MS-4 case
> Paul K0UYA
>
> From: vacuuminded2@...
> Sent: Saturday, March 22, 2014 3:34 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Cabinet for AC4 PS?
>
> Oh you're talking about the steel cover that is sometimes missing from the AC-4. Yes all AC-4 power supplies had that cover originally, AC-3 supplies did not have one, unless they were added late in their production.
>
> I think Paul was referring to the speaker "cabinet" and not that cover.
>
> Chris
>
> Sent from my outdated iPhone wireless thingy
>
> On Mar 22, 2014, at 1:54 PM, Dan Galligan <w3rxo@mac.com> wrote:
>
>>
>> Chris,
>> The cabinets, for the AC-4, were sold separately? I've not heard of such a thing. I know that the MS-4, and AC-4/AC-3, were sold separately. But, I thought that the AC-3's were sold without a top cover, and the AC-4's were. I certainly never heard of either one being sold without a bottom cover. How would it attach to the MS-4 case, then? The one I sold was missing both the top and bottom panels, but, since I found a local fellow here, who had the burned up AC-4, who was willing to give it to me, I removed the two covers and mailed them to my buyer, since I knew he would need at least the bottom cover, to attach it to the MS-4, that was included in the deal.
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>> 73,
>> Dan
>> W3RXO/W5
>> Evening Shade, OK

>> EM25no
>>
>> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
>> Samuel Adams-Patriot and Brewer
>>
>>
>> Sent from my iPad.
>>
>> On Mar 22, 2014, at 13:27, vacuuminded2@yahoo.com wrote:
>>
>>> Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)
>>>
>>> The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.
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>>> TR-4 transceiver $599.95
>>> MS-4 matching speaker $22.00
>>> RV-4 remote VFO $110.00
>>> AC-4 power supply $99.95
>>> DC-4 power supply $110.00
>>> 34PNB noise blanker $100.00
>>>
>>> Regards,
>>> Chris
>>>
>>>
>>> Sent from my outdated iPhone wireless thingy
>>>
>>> On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:
>>>
>>>>
>>>> I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
>>>> Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.
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>>>> 73,
>>>> Dan
>>>> W3RXO/W5
>>>> Evening Shade, OK
>>>> EM25no
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>>>> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your

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>>>> Samuel Adams-Patriot and Brewer
>>>>
>>>>
>>>> Sent from my iPad.
>>>>
>>>> On Mar 22, 2014, at 12:56, rochep@... wrote:
>>>>
>>>>> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
>>>>> paul
>
>

19550. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 21:31:22 UTC
From: Dan Galligan
Topic: 19539 Message: 19550

And, with him talking about some having, and some not having, cabinets, I was thinking he was confusing the AC-4, with an AC-3.
Since he mentioned putting it in the MS-4,
(If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?)
I presumed this was the question.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Mar 22, 2014, at 16:10, vacuuminded2@... wrote:
>
>
>
> Ok my bad on aluminum versus steel. I'm not home and remembered wrong.
>
> C
>
> Sent from my outdated iPhone wireless thingy
>
>> On Mar 22, 2014, at 4:08 PM, "Paul Kraemer" <elespe@...> wrote:
>>
>> FWIW
>> It is an aluminum cover on top of the supply and a steel bottom cover on the chassis
>> All supplies had a bottom cover, only AC-4 had a top cover
>> Either supply fits in an MS-4 case
>> Paul K0UYA
>>
>> From: vacuuminded2@...
>> Sent: Saturday, March 22, 2014 3:34 PM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] Cabinet for AC4 PS?
>>
>> Oh you're talking about the steel cover that is sometimes missing from the AC-4. Yes all AC-4 power supplies had that cover originally, AC-3 supplies did not have one, unless they

were added late in their production.
>>
>> I think Paul was referring to the speaker "cabinet" and not that cover.
>>
>> Chris
>>
>> Sent from my outdated iPhone wireless thingy
>>
>>> On Mar 22, 2014, at 1:54 PM, Dan Galligan <w3rxo@...> wrote:
>>>
>>>
>>> Chris,
>>> The cabinets, for the AC-4, were sold separately? I've not heard of such a thing. I know that the MS-4, and AC-4/AC-3, were sold separately. But, I thought that the AC-3's were sold without a top cover, and the AC-4's were. I certainly never heard of either one being sold without a bottom cover. How would it attach to the MS-4 case, then? The one I sold was missing both the top and bottom panels, but, since I found a local fellow here, who had the burned up AC-4, who was willing to give it to me, I removed the two covers and mailed them to my buyer, since I knew he would need at least the bottom cover, to attach it to the MS-4, that was included in the deal.
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>>> 73,
>>> Dan
>>> W3RXO/W5
>>> Evening Shade, OK
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>>> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
>>> Samuel Adams-Patriot and Brewer
>>>
>>>
>>> Sent from my iPad.
>>>
>>>> On Mar 22, 2014, at 13:27, vacuuminded2@... wrote:
>>>>
>>>> Dan, they were most certainly available separately. This is where getting ahold of original literature for this gear comes in quite handy- :)
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>>>> The following price information is from an undated "Condensed catalog" probably from around the mid 70's as it includes the ML-2.
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>>>> RV-4 remote VFO $110.00
>>>> AC-4 power supply $99.95
>>>> DC-4 power supply $110.00
>>>> 34PNB noise blanker $100.00
>>>>

>>>> Regards,
>>>> Chris
>>>>
>>>>
>>>> Sent from my outdated iPhone wireless thingy
>>>>
>>>>> On Mar 22, 2014, at 1:11 PM, Dan Galligan <w3rxo@...> wrote:
>>>>>
>>>>>
>>>>> I would guess that the ones you've seen with no cabinet, were AC-3's. All AC-4's were sold with a cabinet, as far as I understand.
>>>>> Mind you, I just recently sold an AC-4, that was given to me with no cabinet. But, shortly thereafter, I found a cabinet, which contained a burned out transformer, so I grabbed that up, and sent the cabinet to the buyer, as I have never seen just a cabinet, for sale, at any Hamfest or swap meet, and I knew he was going to need it, for his project.
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>>>>> Samuel Adams-Patriot and Brewer
>>>>>
>>>>>
>>>>> Sent from my iPad.
>>>>>
>>>>>> On Mar 22, 2014, at 12:56, rochep@... wrote:
>>>>>>
>>>>>> I have seen AC4 power supplies with NO "cabinet" and AC4 power supplies inside the MS4 speaker cabinet. Are these exactly the same AC4? If I get an AC4 now and an MS4 with speaker only LATER can I put the AC4 in the MS4 speaker cabinet myself?
>>>>>> paul
>
>
>

19551. Re: [DrakeRadio] Cabinet for AC4 PS?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 21:39:22 UTC
From: <rochep@...>
Topic: 19539 Message: 19551

Got it guys. I know it is in the "ugly" aluminum chassis, with an aluminum "top", I just wanted to know if I could someday hide that ugly PS inside the nice speaker cabinet. Answer is yes, thanks!

paul

19552. GC Rcvr ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 22:55:58 UTC
From: Dan Galligan
Topic: 19552 Message: 19552

Alright folks, I am guessing this is going to be a series of loaded questions, and will arrive at several answers. But, I hope there will be some concensus.

First, though, a little background.

It has become PAINFULLY obvious, to me, that it was ambitious (to say the least) of me to think I could find a way to cram all of my favorite vacuum tube gear, into an 8'x9' room (having room to both operate and repair everything), that I call my shack, here in OK. Also, with acreage, animals and everything else that goes with having a sizable (by city slicker standards) piece of land, I have ZERO time to put, into proper maintenance, of vacuum tube gear, leave alone not having room in the shack, for any operable work bench. So, ALL of my tube gear (with the exception of the Alpha amplifier) is going up for sale, in favor of the most modern of modern radios, a Flex 6500. That should free up enough room for ONE tube type receiver. There is just nothing like the amazing quality of sound from warm, glowing, tubes. I believe that I want a tube type, General Coverage receiver, that will do both broadcast band and amateur bands, well. I own a very nice, recently refurbished and aligned Hammarlund HQ-150. With a big speaker, it sounds awesome. But, I have always been more of a fan of Drake and Collins radios.

So, here's my question. Do I sell the Hammarlund, along with the Johnson Viking Invader 200, that I paired it with? Or not? If I do sell it, bang for the buck, what it the optimal general coverage receiver? Drake? Which? Collins? Which? Is there an advantage of one model, over another similar (R-390, vs. R-390A/SPR-4 vs. SW-4). Something from National? Hallicrafters? Heath?

The only general coverage receivers I've ever owned, have been the two different HQ-150's I've had. It is difficult, to let go of my passion. But, if I want any time, and room, to operate, I must let my tube rigs go to those who will care for them, properly.

If any of you do plan to go to The Hanging Judge Hamfest, you should see me there. I'll be the guy with tables full of Drake and Collins gear. Oh, and a Johnson Invader 200, that may, or may not, have a Hammarlund HQ-150, next to it.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

19553. Re: [DrakeRadio] GC Rcvr ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-22 23:18:26 UTC
From: Bernie
Topic: 19552 Message: 19553

Dan,

I am travelling 150 miles Monday to pick up my dream receiver, the R-390-A (A has mechancial filters). My room is nearly the same size...and I am about to shoot a video of it and post it. I built up from two 8 foot long credenzas on the sides, and a 30 inch deep formica-topped desk across the end. The shelving is built from 12 inch x 46 inch x 1-1/4 thick stair treads. Some shelves are pine, some are old oak stair-treads and some are particle board. Of course I cannot put Johnson Rangers, Viking II's etc on particleboard shelving, just light stuff. One one of the credenza's, where the knee opening is, I hinged a 2 x 3 foot piece of 3/4 ply to the steel credenza, that can be folded down. Under it for support I hinged two decorative stairway banister spindles of good size, which can be folded up underneath the table when it is put down. So far, in a year, I've never put the table down. If I need more room for test equipment I use a fold-away wooden TV table, like one used to use to eat their TV dinners on. When that's not in use it's folded away. So I have all connected and switched and ready to use: 12 pieces of equipment on one wall, including an IFR-1000. End wall desk has seven transmitter/receiver or transceivers along with antenna tuner, AL-811-H amp, 6 telegraph keys and three electronic keyes, plus a patch panel. The other sidewall has two transceivers with power supplies and my computer, plus room for the R-390-A plus 5 or 6 more transceivers or receivers. Then I'll have to call it quits.

I really don't think you'd be sorry going to an R-390 or R-290-A if it has been gone through and is operating as it should. Personally, I'm not really into digital stuff with menus as long as my arm, and still after 4 years, operate the Icom 706 MK-II-G in the most basic manner. I got out of the commercial two way business after I drove 600 miles to a remote repeater site only to find the new super-whiz-bang GE repeater squelch had opened up, holding up the repeater, and it required a lap-top computer to reset it. I resigned as service manager week later.

Good luck...keep us posted as to what you choose and what you think of your choices. It keeps the hobby fresh!!

73

Bernie in ND
WD0GMD
----- Original Message -----
From: Dan Galligan
To: DrakeRadio@yahoogroups.com
Sent: Saturday, March 22, 2014 5:55 PM
Subject: [DrakeRadio] GC Rcvr ?

Alright folks, I am guessing this is going to be a series of loaded questions, and will arrive at several answers. But, I hope there will be some concensus.

First, though, a little background.

It has become PAINFULLY obvious, to me, that it was ambitious (to say the least) of me to think I could find a way to cram all of my favorite vacuum tube gear, into an 8'x9' room (having room to both operate and repair everything), that I call my shack, here in OK. Also, with acreage, animals and everything else that goes with having a sizable (by city slicker standards) piece of land, I have ZERO time to put, into proper maintenance, of vacuum tube gear, leave alone not having room in the shack, for any operable work bench. So, ALL of my tube gear (with the exception of the Alpha amplifier) is going up for sale, in favor of the most modern of modern radios, a Flex 6500. That should free up enough room for ONE tube ty pe receiver. There is just nothing like the amazing quality of sound from warm, glowing, tubes. I believe that I want a tube type, General Coverage receiver, that will do both broadcast band and amateur bands, well. I own a very nice, recently refurbished and aligned Hammarlund HQ-150. With a big speaker, it sounds awesome. But, I have always been more of a fan of Drake and Collins radios.

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If any of you do plan to go to The Hanging Judge Hamfest, you should see me there. I'll be the guy with tables full of Drake and Collins gear. Oh, and a Johnson Invader 200, that may, or may not, have a Hammarlund HQ-150, next to it.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

19554. Fwd: President's Recommendation - USS SLATER - we need you to vote!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 00:07:32 UTC
From: Jim Shorney
Topic: 19554 Message: 19554

OT, but I know that some here will find this of value. I've checked the link, it's legit.

==========BEGIN FORWARDED MESSAGE==========

List members:

This was posted this morning on the Collins Collectors Association email list by Bill Carns, President of the CCA. Like BIll, I think this is something that many on the R-390 reflector would be interested in and would lend a vote of support. The USS Slater museum ship, the only remaining WW II Destroyer Escort, is in a competition to receive some grant money. I know that many of you either volunteer or otherwise support museum ships like USS Slater and will see the value in this. Hopefully you can take a minute and follow the link below and add vote for their cause.

The link is towards the end of the post, but I include it here:

http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-promotion/2053/

Thanks and 73,

-dennis W6DQ
Fullerton CA

-------- Original Message --------
Subject: {Collins} President's Recommendation - USS SLATER - we need you to vote!
Date: Sat, 22 Mar 2014 10:07:45 -0500
From: Bill Carns <wcarns@...>
To: <COLLINS@...>

I will risk being slightly marginal about topic here. But not really. This ship is part of our national heritage and also the radio room is stuffed with Collins and deserves to be preserved. All you need to do to show your support of this preservation effort and grant request is to click the link below. I urge you to do just that.Then go visit. I want to thank Tom for his relay here. There was a photo of a great bunch of volunteers working on the ship, but it will not come through the reflector, and may cause a bounce, so I am deleting it.

Bill Carns, N7OTQ
Trustee K0CXX
President, Collins Collectors Association
Editor, Signal Magazine
Wimberley, TX

512 618 2762 (Cell)
512 847 7010 (Home)

From: Tom Chirhart [mailto:k4ncgva@...]
Sent: Saturday, March 22, 2014 9:53 AM
To: Bill Carns
Subject: Fwd: USS SLATER - we need you to vote!

Bill,

I wanted to as your approval before forwarding this to the CCA reflector. The USS Slater is the only remaining WW-II Destroyer Escort and they are competing for a grant. They need votes. The Radio Room has restored Collins gear and other gear. I found some ham band crystals for their TBL TX in a parts bin. Can you share this with the reflector. voting ends Monday at 5 PM.
Best 73

Tom

K4NCG
Sent from my iPad

From: Tim Rizzuto <tim@... <mailto:tim@...> >
Date: March 21, 2014 at 9:04:59 AM EDT
To: slater@... <mailto:slater@...>
Subject: USS SLATER - we need you to vote!

http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-promotion/2053/

It's the final round of the Capital Region Gives contest. We need everybody's help to share this as far and as wide as you can, and vote for the USS SLATER. We're up against several other worthy not-for-profits. But USS SLATER is special because she was saved by veterans, and restored by veterans, to honor veterans. She stands as a symbol of their courage and the sacrifices that have protected this country and enabled all of the other agencies to do their good work.

These guys put in 17,000 Volunteer hours aboard the ship last year. All we want you to do is click a link.

We need you to vote, and for everybody to share this link. Spread the word for USS SLATER! Let this be our turn. Let's share this and win this.

_____
R-390 mailing list
Home: http://mailman.qth.net/mailman/listinfo/r-390
Help: http://mailman.qth.net/mmfaq.htm
Post: mailto:R-390@...

This list hosted by: http://www.qsl.net
Please help support this email list: http://www.qsl.net/donate.html

==========END FORWARDED MESSAGE==========

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19555. Re: [DrakeRadio] TR-4C Alignment. Bad 28 28.5 29

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 00:42:19 UTC
From: Steve VK2SJA
Topic: 19529 Message: 19555

Got it.

Faulty V1. In fact I seem to have a small collection of poor and not-so-good 6EA8 valves. But by juggling them around (V3 to V1 and the best of a bad lot replacing V3) I can now get the "Injection Crystal Oscillator" alignments all into negative territory. And my negative voltage levels are much greater than with the original V1 tube.

Needless to say the 100KHz Marker Calibrator now sounds like it should. Not distorted.

Couple more questions:-

Currently I have these voltages measurements on the TP

7 = -1.085
21 = -0.806
29 = -0.317

Are these levels OK? Or should they be even more negative?

Next question I think I need to buy a few more 6EA8 valves. Are there any particular brands preferred (or ones that I should stay away from). Good cheaper substitutes?

73, Steve

> Correction.
>
> On 21 I also have slightly distorted crystal calibrator tone. Not nearly
> as bad as 28, 28.5 and 28.
>
> 100KHz marker tone sounds fine on 3.5, 7 and 14.
>
> 73, Steve
>
>
>> Hi All,
>>
>> Well I have hit another road-bump on the way to restoring my TR-4C to
>> full
>> health.
>>
>> Started the 'Alignment' procedures today. Quickly discovered why I have
>> low TX output on the 28, 28.5 and 29.1 bands.
>>
>> When doing the "5-10 INJECTION CRYSTAL OSCILLATOR" adjustments

>> everything
>> was fine until I hit 29.1 MHz. While doing the adjustment (having to do
>> it
>> with a DMM) I notice that the voltage was *positive* not negative!
>>
>> I then discovered that the Crystal Calibrator signal on these same bands
>> is *severely* distorted! Things are far from linear somewhere!!
>>
>> Any ideas for where I should start looking?
>>
>> Thanks!
>>
>> 73, Steve.
>>
>>
>>
>>
>>
>>
>>
>
>
>

19556. Re: [DrakeRadio] WTB: Six Drake 2C/2NT Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 01:40:34 UTC
From: George- K4GM
Topic: 19517 Message: 19556
Attachments: 1 described; binary payloads are missing from this source WARC

David,

Make a note of my email address. I may be parting out a 2B in the near future. If so I should have knobs.

73, George K4GM

> soffrind@... <mailto:soffrind@...>
> Friday, March 21, 2014 1:57 PM
>
> Hi--I am looking to replace some mismatched knobs on my 2-Series twins
> and I need six of the round knobs with the silver ring insert that
> were only used on the 2-series. Please check your parts boxes!! Many
> thanks,
> David Soffrin
>
>

19557. WTB SL500 and 7-line cabinet

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 10:40:41 UTC
From: Dieter Horst
Topic: 19557 Message: 19557

Dear all,

I have an ongoing TR7 restoration project (RX is fine now, TX still needs some work) and would like a 500 Hz CW filter to go with it.

For a different project I need the small 7-line accessories cabinet (like MS7, WH7 etc). I know chances are low but if you happen to have one...

I am in Germany but shipping etc. will be fully covered.

73s, Dieter DL5RDO

19558. For sale: 2AQ in excellent condition.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 16:28:07 UTC
From: George- K4GM
Topic: 19558 Message: 19558

Drake 2AQ Q-multiplier/speaker for sale. Price $150 plus shipping to you. Works well. Boxed and ready to ship.

George K4GM

19559. Re: [DrakeRadio] RV7 Remote VFO Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 16:46:40 UTC
From: Garey Barrell
Topic: 19516 Message: 19559

Yes, they get noisy. Check the RIT terminal on the side of the PTO with a scope. Should be a
nice straight line!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> Leon, you need to do as Joe suggested and check the 4016 on the parent board.
> This is a known issue. These ICs are strange beasties and can fail in some odd
> ways. It is in circuit whether the RIT is on or off. If you don't eliminate it
> first as the source of the problem you may have the same problem with a
> replacement PTO.
>
>
>
> On Fri, 21 Mar 2014 14:48:06 -0500, Leon Zebrick wrote:
>
>> I'm open to shotgunning, but it might just be easier to find a salvage unit.
>

19560. Re: [DrakeRadio] TR-7 parent board tantalum cap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 16:55:44 UTC
From: Garey Barrell
Topic: 19529 Message: 19560

Mark -

Yes, that is a Tantalum cap. 10 uF @ 25V. Good rule d'thumb for Tantalum is at least twice expected voltage. You find a lot fewer looking like yours that way!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

mark@... wrote:
>
>
> My TR-7 was starting to behave strangely and since it had been a couple of years since I had
> done the pull the boards, Deox and reseat routine, I figured it was time. Upon visual
> inspection, I noticed that one of the two tantalum caps on the bottom of the parent board had
> one of its legs blown off. Other than the tantalum being near an IED, what might be a cause
> for this?
>
> MARK - K6MJD - SAN DIEGO
>

19561. Who can restore a B line for me?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 18:21:38 UTC
From: <kf5tjc@...>
Topic: 19561 Message: 19561

I was given a "B" line of radios. I'd like to have them refurbished/restored but don't want to ship them. I live in Northwest Arkansas and would drive 6-8 hours to drop off and pick up the set. I've got the R4b, TX4B, power supply/speaker and antenna tuner. I am a fairly new ham and know nothing about tube radios and that's part of the reason I want to drive the radios somewhere. That way, once they're back up to par, I can be shown how to connect them and use them. If you have any information, please reply here or email me at kf5tjc@yahoo.com. Thanks. Jared Drake.

19562. Re: [DrakeRadio] Who can restore a B line for me?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 18:30:55 UTC
From: Evan Rolek
Topic: 19561 Message: 19562

Ron, WB4HFN, and Jeff, WA8SAJ, are two great resources up North...

-----Original Message-----
From: kf5tjc <kf5tjc@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 23, 2014 2:28 pm
Subject: [DrakeRadio] Who can restore a B line for me?

I was given a "B" line of radios. I'd like to have them refurbished/restored but don't want to ship them. I live in Northwest Arkansas and would drive 6-8 hours to drop off and pick up the set. I've got the R4b, TX4B, power supply/speaker and antenna tuner. I am a fairly new ham and know nothing about tube radios and that's part of the reason I want to drive the radios somewhere. That way, once they're back up to par, I can be shown how to connect them and use them. If you have any information, please reply here or email me at kf5tjc@.... Thanks. Jared Drake.

19563. Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 19:07:26 UTC
From: Steve Wedge
Topic: 19563 Message: 19563

I'm working on a VERY early T-4 (s/n 0017) and have found some weirdness, compared with other Transmitter Twins.

If the CW key is plugged in, I can't get it to pass a voice signal in SSB mode unless the key is also closed. I know this was a "feature" of the TR-3/TR-4's, if you had a key plugged in. Is this just a normal behaviour for the really early transmitters? If it is, I'll leave it alone as this set is all-original and in excellent (9/10) condition.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19564. TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 19:10:28 UTC
From: <mkellync@...>
Topic: 19564 Message: 19564

Hello everyone,

In reading the manual for a TR4C it says if the time it takes to cycle from transmit to receive is too long, change it by decreasing the Vox Gain. Nothing happens for me, so, if doing so makes little or no change in the time delay, what is likely the problem?

Mine is a CW/RIT version, but I am assuming that will make no difference. I have had a number of TR4 transceivers and do not remember having much success in changing the delay much at all - or at least nothing like what you have with a T-4X transmitter. Am I missing something?

Thanks,
Michael nz4d, ex/kb4mk

19565. Re: [DrakeRadio] Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 19:24:34 UTC
From: Steve Wedge
Topic: 19563 Message: 19565

Guess I just never noticed this before! I see in my version of the manual that it says the key needs to be removed or left in key-down for other modes.

I do believe they may have changed this with later units, as I was using a late T-4X last weekend, with a key plugged in and not keyed, on SSB.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve Wedge
Sent: Sunday, March 23, 2014 3:07 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Early T-4 - key connected like old TR-4?

I'm working on a VERY early T-4 (s/n 0017) and have found some weirdness, compared with other Transmitter Twins.

If the CW key is plugged in, I can't get it to pass a voice signal in SSB mode unless the key is also closed. I know this was a "feature" of the TR-3/TR-4's, if you had a key plugged in. Is this just a normal behaviour for the really early transmitters? If it is, I'll leave it alone as this set is all-original and in excellent (9/10) condition.

73,

Steve Wedge, W1ES/4

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19566. Re: [DrakeRadio] Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 19:43:09 UTC
From: Bill
Topic: 19563 Message: 19566

I got a T-4 s/n 0018 in 1965 and that is the way it is. I had it converted to a T-4X later, but the serial number was not changed. My TR-4 C works the same way. The key must be unplugged or the contact shorted.

Bill
----- Original Message -----
From: Steve Wedge
To: DrakeRadio@yahoogroups.com
Sent: Sunday, March 23, 2014 2:07 PM
Subject: [DrakeRadio] Early T-4 - key connected like old TR-4?

I'm working on a VERY early T-4 (s/n 0017) and have found some weirdness, compared with other Transmitter Twins.

If the CW key is plugged in, I can't get it to pass a voice signal in SSB mode unless the key is also closed. I know this was a "feature" of the TR-3/TR-4's, if you had a key plugged in. Is this just a normal behaviour for the really early transmitters? If it is, I'll leave it alone as this set is all-original and in excellent (9/10) condition.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19567. Re: [DrakeRadio] Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 21:43:50 UTC
From: Charles Ahlgren
Topic: 19563 Message: 19567

Steve:

My T4X (#10858 - January 1966) requires the key to be either removed or in down position. However, my T4XC (#26464 8/1976) does not require the key to be shorted or removed...

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Sun, Mar 23, 2014 at 12:07 PM, Steve Wedge <w1es1982@...> wrote:

>
>
> I'm working on a VERY early T-4 (s/n 0017) and have found some
> weirdness, compared with other Transmitter Twins.
>
> If the CW key is plugged in, I can't get it to pass a voice signal in SSB
> mode unless the key is also closed. I know this was a "feature" of the
> TR-3/TR-4's, if you had a key plugged in. Is this just a normal behaviour
> for the really early transmitters? If it is, I'll leave it alone as this
> set is all-original and in excellent (9/10) condition.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>

19568. Re: [DrakeRadio] Who can restore a B line for me?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 21:56:55 UTC
From: Charles Ahlgren
Topic: 19561 Message: 19568

Jared:

I had my C-Line (R4C/T4XC) redone by Ron Baker, WB4HFN, in Byrdstown, TN.
Ron did an excellent job and was very reasonably priced. I shipped my
radios via UPS to him direct with no problems whatsoever.

Checkout his website....

http://www.wb4hfn.com/

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Sun, Mar 23, 2014 at 11:21 AM, <kf5tjc@...> wrote:

>
>
> I was given a "B" line of radios. I'd like to have them
> refurbished/restored but don't want to ship them. I live in Northwest
> Arkansas and would drive 6-8 hours to drop off and pick up the set. I've
> got the R4b, TX4B, power supply/speaker and antenna tuner. I am a fairly
> new ham and know nothing about tube radios and that's part of the reason I
> want to drive the radios somewhere. That way, once they're back up to par,
> I can be shown how to connect them and use them. If you have any
> information, please reply here or email me at kf5tjc@yahoo.com. Thanks.
> Jared Drake.
>
>

19569. Re: [DrakeRadio] Who can restore a B line for me?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 22:10:53 UTC
From: vacuuminded2@...
Topic: 19561 Message: 19569

Thanks for joining Jared, check out the archives and don't be afraid to ask questions once you get that great B line up and running! There are several great guys on here who do fine work for hire.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Mar 23, 2014, at 1:21 PM, <kf5tjc@...> wrote:

> I was given a "B" line of radios. I'd like to have them refurbished/restored but don't want to ship them. I live in Northwest Arkansas and would drive 6-8 hours to drop off and pick up the set. I've got the R4b, TX4B, power supply/speaker and antenna tuner. I am a fairly new ham and know nothing about tube radios and that's part of the reason I want to drive the radios somewhere. That way, once they're back up to par, I can be shown how to connect them and use them. If you have any information, please reply here or email me at kf5tjc@.... Thanks. Jared Drake.
>
>

19570. T-4 Tube Label

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-23 23:35:33 UTC
From: Steve Wedge
Topic: 19570 Message: 19570

I've posted the photo of V3 on my very early T-4. There's a label stuck over the original stenciling that says, "6AU6". There's a 6HS6 sitting in the socket - which is how I received the set.

Look in my album "Drake Curiosities".

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19571. Re: [DrakeRadio] WTB: Six Drake 2C/2NT Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 00:50:54 UTC
From: <k5dh@...>
Topic: 19517 Message: 19571

George,

If you do end up parting out that 2-B, will you have the Main Tuning (VFO) knob available? I've been looking for one.

73,
Dean K5DH

19572. Re: [DrakeRadio] WTB: Six Drake 2C/2NT Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 01:10:48 UTC
From: George-K4GM
Topic: 19517 Message: 19572

Yes.

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: k5dh@qsl.net
Date:03/23/2014 8:50 PM (GMT-05:00)
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] WTB: Six Drake 2C/2NT Knobs

George,

If you do end up parting out that 2-B, will you have the Main Tuning (VFO) knob available? I've been looking for one.

73,

Dean K5DH

19573. Re: [DrakeRadio] Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 02:21:15 UTC
From: Garey Barrell
Topic: 19563 Message: 19573

Steve -

A set of contacts was added to the FUNCTION switch during the T-4X, fairly early, that shorted
the KEY bus in SSB. I think it always worked in TUNE or CAL, but not in SSB.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
>
>
> I'm working on a VERY early T-4 (s/n 0017) and have found some weirdness, compared with other
> Transmitter Twins.
> If the CW key is plugged in, I can't get it to pass a voice signal in SSB mode unless the key
> is also closed. I know this was a "feature" of the TR-3/TR-4's, if you had a key plugged in.
> Is this just a normal behaviour for the really early transmitters? If it is, I'll leave it
> alone as this set is all-original and in excellent (9/10) condition.
>

19574. Re: [DrakeRadio] TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 02:26:48 UTC
From: Garey Barrell
Topic: 19564 Message: 19574

Michael -

There is a resistor, R106, that sets the delay time. It is originally a 3.3M, but some drift up
in value, lengthening the delay time.. You can choose a resistor to get it in the general range
you like, then 'fine' adjust with the VOX GAIN control.

It's on a board between V19 and the AF OUTPUT Transformer, right on the top edge of the board.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

mkellync@... wrote:
>
>
> Hello everyone,
>
> In reading the manual for a TR4C it says if the time it takes to cycle from transmit to
> receive is too long, change it by decreasing the Vox Gain. Nothing happens for me, so, if
> doing so makes little or no change in the time delay, what is likely the problem?
>
> Mine is a CW/RIT version, but I am assuming that will make no difference. I have had a number
> of TR4 transceivers and do not remember having much success in changing the delay much at all
> - or at least nothing like what you have with a T-4X transmitter. Am I missing something?
>
>

19575. Re: [DrakeRadio] Early T-4 - key connected like old TR-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 02:42:39 UTC
From: Steve Wedge
Topic: 19563 Message: 19575

It requires closure of the key for tune or ssb. Interestingly, the old manual I have (which did not come with the T-4) mentions that the key must be closed for other modes if there's a key plugged in.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Mar 23, 2014, at 10:21 PM, Garey Barrell <k4oah@...> wrote:
>
> Steve -
>
> A set of contacts was added to the FUNCTION switch during the T-4X, fairly early, that shorted
> the KEY bus in SSB. I think it always worked in TUNE or CAL, but not in SSB.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve Wedge wrote:
> >
> >
> > I'm working on a VERY early T-4 (s/n 0017) and have found some weirdness, compared with other
> > Transmitter Twins.
> > If the CW key is plugged in, I can't get it to pass a voice signal in SSB mode unless the key
> > is also closed. I know this was a "feature" of the TR-3/TR-4's, if you had a key plugged in.
> > Is this just a normal behaviour for the really early transmitters? If it is, I'll leave it
> > alone as this set is all-original and in excellent (9/10) condition.
> >
>
>

19576. Re: [DrakeRadio] Who can restore a B line for me?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 03:13:46 UTC
From: Richard Knoppow
Topic: 19561 Message: 19576

----- Original Message -----
From: <kf5tjc@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 23, 2014 11:21 AM
Subject: [DrakeRadio] Who can restore a B line for me?

>I was given a "B" line of radios. I'd like to have them
>refurbished/restored but don't want to ship them. I live in
>Northwest Arkansas and would drive 6-8 hours to drop off
>and pick up the set. I've got the R4b, TX4B, power
>supply/speaker and antenna tuner. I am a fairly new ham and
>know nothing about tube radios and that's part of the
>reason I want to drive the radios somewhere. That way, once
>they're back up to par, I can be shown how to connect them
>and use them. If you have any information, please reply
>here or email me at kf5tjc@.... Thanks. Jared Drake.

First whether you decide to work on this stuff
yourself or not I strongly recommend that you get Garey
Barrell's service discs. These have high resolution
instruction books and other stuff not available elsewhere
including very good hi rez photos of the chassis. The B
line disc also covers the Drake antenna tuners and linear
amplifier.
Drake stuff is not hard to align or work on. Unless
your rig has a particular problem the main thing is to
rebuild the AC-4 power supply. Kits of parts are available
from a couple of places. This is a simple job requiring
mainly soldering and using a screwdriver. Alignment needs
mainly a decent electronic voltmeter. A signal generator is
helpful but the internal calibrator will serve for most of
it. The procedure is not difficult. The main difference
between vacuum tube and solid state equipment is the
presence of high voltages in the tube equipment. Those of
us who grew up with it learned some simple safety
precautions early but the main thing is to be aware its
there. I can understand wanting to start off with every
thing right but its also good to have some familiarity with
the gear. The stuff in the discs will help and you should
have it even if you never intend to take the covers off.
I run the B line with an MFJ antenna tuner. The latter
has a power meter and VSWR meter in it which I find helpful.
The combination is excellent. The B line has all the
features that are really useful and is hard to improve on.
Once you have it up and running you may want to invest in

extra crystals to expand the range. The B line will over
the entire 10 meter band and the WARC bands. I use the pair
as a transceiver for the extra frequencies with the receiver
as the frequency control. But the transmitter will also take
extra crystals, just not as many.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19577. R-4A Hum

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 03:19:51 UTC
From: <k6ctw@...>
Topic: 19577 Message: 19577

Sent this to Gary as well but thought I'd also put it out to the group.

This is on the R-4A (2xxx series, 13-tube) I got on eBay a couple weeks ago.

On my communications speaker I hear no hum at all. Probably because the speaker can't really "hear" the 60 cycle frequency. Same is true of the old phones I have that I use with a 2-B. However, when I use my really super phones (from Arlen Communications) I hear lots of hum. By the way it's the Same on the Drake 2-B in that I only hear hum on the super phones.

Note that on the R-4A I did replace R43, R44 with 1% 1 W and C131 with a 10 uF/250V electrolytic. It did improve things but the hum is still there. Also put in a new 6EH5 as it was microphonic and as per Gary's troubleshooting guide on the CD he sells, V6 the 6GX6. I have not had a chance to check the other tubes yet, but wonder if that is a possibility as well?

On a side note, my R-4C does not have a trace of hum on the Arlen Communications phones.Ideas anyone?

73 - ken k6ctw

19578. TR4 crystal filter impedance?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 05:02:01 UTC
From: Steve VK2SJA
Topic: 19529 Message: 19578

Hello All,

Just out of interest. Does anyone happen to know what the TR-4 series SSB crystal filter input/output impedances are?

73, Steve
VK2SJA

19579. Re: TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 10:37:11 UTC
From: <mkellync@...>
Topic: 19564 Message: 19579

Thanks Garey, unfortunately, I did not do a good job of clarifying .... as I am trying to lengthen or increase the change over time between transmit and receive as it is really fast ... if you are not running 28 wpm+ it is a bit fast and drops out in between words. So the resistor the likely culprit you reckon? Thanks as always for the help.

73 Michael nz4d

19580. Re: Hum on the R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 14:04:22 UTC
From: Garey Barrell
Topic: 19580 Message: 19580

Ken -

I think you may be seeing 'low gain' hum. Where does the GAIN control set on the 'old' and 'new' phones?

The situation is that the AF stages run 'wide open', and the volume is controlled by the amount
of signal applied to the input. So if the signal / noise ratio is 10:1 at normal volume, (GAIN
set to about 10-11 o'clock,) and your 'sensitive' phones make you turn the GAIN down to 7-8 o'clock, the signal drops to 5 but the noise is still 1, the s/n ratio is poorer. More hum &
noise. This is improved by putting a resistor in series with the phones to allow you to increase the AF GAIN control to improve the s/n ratio, without bursting your eardrums.

If the AF GAIN is running at 10-11 o'clock with your sensitive phones, then the problem is in
the receiver. You can change the coupling capacitor, (make it smaller) to reduce the response
to low frequency hum.

Beyond that, you're talking more serious changes to the receiver such as rotating the Power and
AF Output transformers to decrease coupling, etc. Another list member did some serious changes
to a couple of receivers by re-orienting transformers, shifting lead dress, etc.

Another alternative is an audio output filter to roll off the low end, -OR- don't use the 'sensitive' phones!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ken Miller K6CTW wrote:
> Gary,
>
> Interesting on the R-4A (2xxx series, 13-tube). On my communications speaker I hear no hum at all. Probably because the speaker can't really "hear" the 60 cycle frequency. Same is true of the old phones I have that I use with a 2-B. However, when I use my really super phones (from Arlen Communications) I hear lots of hum. By the way it's the Same on the Drake 2-B in that I only hear hum on the super phones.
>
> Note that on the R-4A I did replace R43, R44 with 1% 1 W and C131 with a 10 uF

electrolytic. It did improve things but the hum is still there. Also put in a new 6EH5 as it was microphonic and as per your troubleshooting guide, V6 the 6GX6. I have not had a chance to check the other tubes yet, but is that a possibility as well?
>
> Ideas?
>
> On a side note, my R-4C does not have a trace of hum on the good phones.
>
> Thanks again for all your help and I really do appreciate your expertise and time.
>
> 73 - ken, k6ctw
>
>

19581. Captions for the Pictures

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 14:07:27 UTC
From: <ko4bg1@...>
Topic: 19581 Message: 19581

Is there no write up for the pictures in the pic section or am I just missing it? It would be very helpful if there were headings or short descriptions with each pic. But then I may be missing them somewhere Woody

19582. Re: [DrakeRadio] R-4A Hum

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 14:08:56 UTC
From: Team Karst
Topic: 19577 Message: 19582

Does the hum go up and down with the AF volume control? Can you get an actual AC volt reading at the headphone or speaker jack? If so, I'll do the same with my R4A, which has a slight hum and all new caps.

WB4SPT Fairport, NY

On Sunday, March 23, 2014 11:19 PM, "k6ctw@..." <k6ctw@...> wrote:

Sent this to Gary as well but thought I'd also put it out to the group.

This is on the R-4A (2xxx series, 13-tube) I got on eBay a couple weeks ago.

On my communications speaker I hear no hum at all. Probably because the speaker can't really "hear" the 60 cycle frequency. Same is true of the old phones I have that I use with a 2-B. However, when I use my really super phones (from Arlen Communications) I hear lots of hum. By the way it's the Same on the Drake 2-B in that I only hear hum on the super phones.

Note that on the R-4A I did replace R43, R44 with 1% 1 W and C131 with a 10 uF/250V electrolytic. It did improve things but the hum is still there. Also put in a new 6EH5 as it was microphonic and as per Gary's troubleshooting guide on the CD he sells, V6 the 6GX6. I have not had a chance to check the other tubes yet, but wonder if that is a possibility as well?

On a side note, my R-4C does not have a trace of hum on the Arlen Communications phones.Ideas anyone?

73 - ken k6ctw

19583. Re: Hum on the R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 14:26:49 UTC
From: Ken Miller K6CTW
Topic: 19580 Message: 19583

Gary,

Thanks for the excellent advice. With the sensitive phones, I hear the hum with the gain from 7 - 9 o'clock, and then after that it's mostly gone. With the older phones and the speaker, I need to get the gain to about 10 o'clock to get listen-able volume. So, sounds like I'll be putting that resistor in series with the phones then. I'll give that a try when I get back from work this evening.

73 - ken

-----Original Message-----
>From: Garey Barrell <k4oah@...>
>Sent: Mar 24, 2014 7:04 AM
>To: Ken Miller K6CTW <k6ctw@...>, drakeradio@yahoogroups.com
>Subject: Re: Hum on the R-4A
>
>Ken -
>
>I think you may be seeing 'low gain' hum. Where does the GAIN control set on the 'old' and
>'new' phones?
>
>The situation is that the AF stages run 'wide open', and the volume is controlled by the amount
>of signal applied to the input. So if the signal / noise ratio is 10:1 at normal volume, (GAIN
>set to about 10-11 o'clock,) and your 'sensitive' phones make you turn the GAIN down to 7-8
>o'clock, the signal drops to 5 but the noise is still 1, the s/n ratio is poorer. More hum &
>noise. This is improved by putting a resistor in series with the phones to allow you to
>increase the AF GAIN control to improve the s/n ratio, without bursting your eardrums.
>
>If the AF GAIN is running at 10-11 o'clock with your sensitive phones, then the problem is in
>the receiver. You can change the coupling capacitor, (make it smaller) to reduce the response
>to low frequency hum.
>
>Beyond that, you're talking more serious changes to the receiver such as rotating the Power and
>AF Output transformers to decrease coupling, etc. Another list member did some serious changes
>to a couple of receivers by re-orienting transformers, shifting lead dress, etc.
>
>Another alternative is an audio output filter to roll off the low end, -OR- don't use the
>'sensitive' phones!!

>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Ken Miller K6CTW wrote:
>> Gary,
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>> Interesting on the R-4A (2xxx series, 13-tube). On my communications speaker I hear no hum at all. Probably because the speaker can't really "hear" the 60 cycle frequency. Same is true of the old phones I have that I use with a 2-B. However, when I use my really super phones (from Arlen Communications) I hear lots of hum. By the way it's the Same on the Drake 2-B in that I only hear hum on the super phones.
>>
>> Note that on the R-4A I did replace R43, R44 with 1% 1 W and C131 with a 10 uF electrolytic. It did improve things but the hum is still there. Also put in a new 6EH5 as it was microphonic and as per your troubleshooting guide, V6 the 6GX6. I have not had a chance to check the other tubes yet, but is that a possibility as well?
>>
>> Ideas?
>>
>> On a side note, my R-4C does not have a trace of hum on the good phones.
>>
>> Thanks again for all your help and I really do appreciate your expertise and time.
>>
>> 73 - ken, k6ctw
>>
>>
>

19584. Re: [DrakeRadio] Re: Hum on the R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 14:59:22 UTC
From: Paul Christensen
Topic: 19580 Message: 19584

> Another alternative is an audio output filter to roll off the low end, -OR- don't use the >'sensitive' phones!!

In situations where I did not want to overhaul the audio chain on receivers that use a common AF amp for both the speaker and headphones, I've made the following modification with good results.

As Garey discussed, you can insert resistance with the headphone lead. In doing so, the effective signal-to-hum ratio improves, provided the peak audio level stays comfortably below the audio clip point. Since I detest using mono-to-stereo adapters (for use with modern phones), one can install a Switchcraft Tip/Ring/Sleeve (TRS) 1/4-inch jack in the Drake receiver and accomplish two goals at the same time: (1) hum reduction; and (2) mono-to-stereo conversion.

Audio from the amp transformer is routed to both the tip and ring contacts so that stereo phones can be used without an adapter. Switchcraft makes several versions of their high-quality sealed 1/4-inch jacks. The type to get has an extra "normalled" contact closure. Cosmetically, the new 1/4-inch jack looks exactly the same as the old one. It works like this: When the speaker is used, the normalled contact shorts out the series resistor. When headphones are plugged in, the mechanical operation of the plug insertion lifts the normalled contact and you now have the benefit of hum reduction through the resistor. With the shorting of the resistor, full audio power delivered to the speaker is restored.

Paul, W9AC

19585. Re: [DrakeRadio] Captions for the Pictures

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:01:13 UTC
From: Garey Barrell
Topic: 19581 Message: 19585

Woody -

There is a 'title block' in the lower left corner of the photos that appears when you 'hover'
your mouse in that area. When you click on a picture in an Album, the block is shown also. Most
of the pics in our group are mentioned in a post, and then referenced from there.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

ko4bg1@... wrote:
>
>
> Is there no write up for the pictures in the pic section or am I just missing it? It would be
> very helpful if there were headings or short descriptions with each pic. But then I may be
> missing them somewhere
> Woody
>

19586. Re: [DrakeRadio] Re: TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:01:28 UTC
From: Terry
Topic: 19564 Message: 19586

My TR4CW has a "Relay Delay Mod". The circuit diagram was provided by Bill Frost to the Drake list and designed by Thom LaCosta. It consists of a 15 meg pot and a cap added to one end of R106. I can provide the circuit diagram if you want.

73
Terry
N7BDL

On 3/24/14, 3:37 AM, mkellync@... wrote:
>
>
> Thanks Garey, unfortunately, I did not do a good job of clarifying
> .... as I am trying to lengthen or increase the change over time
> between transmit and receive as it is really fast ... if you are not
> running 28 wpm+ it is a bit fast and drops out in between words. So
> the resistor the likely culprit you reckon? Thanks as always for the
> help.
>
> 73 Michael nz4d
>
>
>

19587. Re: [DrakeRadio] Re: TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:18:12 UTC
From: Garey Barrell
Topic: 19564 Message: 19587

Michael -

OK. That resistor is selected for the desired delay. You don't say if this is a 'change' for
you or is this a 'new' radio to you?

Too short a delay could be caused by someone changing R106 to a lower value, or leakage in diode
D5, or, least likely leakage in C143. Bad solder on either lead of C143 is a possibility. Also
check the mounting 'foot' of Board 4 to the chassis (tighten mounting screw if loose, or loosen
and retighten.)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

mkellync@... wrote:
>
>
> Thanks Garey, unfortunately, I did not do a good job of clarifying .... as I am trying to
> lengthen or increase the change over time between transmit and receive as it is really fast
> ... if you are not running 28 wpm+ it is a bit fast and drops out in between words. So the
> resistor the likely culprit you reckon? Thanks as always for the help.
>
> 73 Michael nz4d
>
>
>

19588. Re: [DrakeRadio] Re: TR4CwRIT CW Switchover time

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:30:01 UTC
From: Garey Barrell
Topic: 19564 Message: 19588

Terry -

Yes, that mod was circulated,it was originally distributed by Drake for the T-4X which did not
have a rear panel adjustment at first. Nothing is ever NEW! :-).

Essentially you're putting the 15M pot in place of R106. I don't recall an extra cap, but perhaps the long leads were bypassed. Plus you have to drill a hole in the rear panel. Generally, you can select R106 to give you sufficient adjustment with the VOX GAIN control.

But too short at 28 WPM means that either R106 has been changed or there is a fault in one of
the components I listed.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Terry wrote:
>
>
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> list and designed by Thom LaCosta. It consists of a 15 meg pot and a cap added to one end of
> R106. I can provide the circuit diagram if you want.
>
> 73
> Terry
> N7BDL
>
>
> On 3/24/14, 3:37 AM, mkellync@... wrote:
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>> lengthen or increase the change over time between transmit and receive as it is really fast
>> ... if you are not running 28 wpm+ it is a bit fast and drops out in between words. So the
>> resistor the likely culprit you reckon? Thanks as always for the help.
>>
>> 73 Michael nz4d
>

>
>
>

19589. national electronics 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:30:05 UTC
From: el34guy@...
Topic: 19589 Message: 19589

Hello,

I just found a box of tubes that I had left behind at my dads place while I was in the process of moving and it contains a lot of brand new 6JB6A National Electronics tubes. They are in the red and white boxes. I know most of what national electronics sold was re-branded regular type tubes and your results may vary in a big way. I think on average they aren't too well thought of. So far in inspecting a few of these tubes I have found the short variety and also the taller tubes. Does anyone have experience with these as far as finding out whether or not they are decent tubes? I haven't looked to see if the internal structures match up to being sylvania's, rca's, philip's, or whomever. My guess is that they were produced in the 80's and are likely the last batches of what somebody made and called 6JB6's. Anyone know if they are the last of the sylvania's or philip's? Thanks for any feedback you guys have on these.

73
Mark
W0NCL

19590. Re: [DrakeRadio] national electronics 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:43:30 UTC
From: Garey Barrell
Topic: 19589 Message: 19590

Mark -

I've never had very good luck with National tubes, but then I've avoided them! :-)

You can check the general quality with the 'matching' procedure I described a couple of days
ago. If they draw ~35 mA at between -55 to -60 VDC of BIAS. If that's ok, about all you can do
is pick two that 'look alike' internally and take the 'same' BIAS voltage, and install them in a
transmitter. See if you can neutralize them, (check on 20, 15 and 10M,) and then see how much
power they put out, especially on 10M.

If that all works out, then use them! Perhaps someone knows who made them, but by then they were building one tube design and marking it under several different types. They probably checked them at 16 kHz, but not at 30 MHz....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

el34guy@... wrote:
>
>
> Hello,
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> of. So far in inspecting a few of these tubes I have found the short variety and also the
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> are decent tubes? I haven't looked to see if the internal structures match up to being
> sylvania's, rca's, philip's, or whomever. My guess is that they were produced in the 80's and
> are likely the last batches of what somebody made and called 6JB6's. Anyone know if they are

> the last of the sylvania's or philip's? Thanks for any feedback you guys have on these.
>
> 73
> Mark
> W0NCL
>

19591. Re: [DrakeRadio] national electronics 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 15:53:40 UTC
From: el34guy@...
Topic: 19589 Message: 19591

Thanks Garey,

I know in the audio world no one thinks a lot of these tubes either. I did see your email a few days ago about tube matching so I will follow that route. Thanks so much for your input, I really appreciate it!

73
Mark
W0NCL

-----Original Message-----
From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 24, 2014 10:43 am
Subject: Re: [DrakeRadio] national electronics 6JB6 Tubes

Mark -

I've never had very good luck with National tubes, but then I've avoided them!
:-)

You can check the general quality with the 'matching' procedure I described a
couple of days
ago. If they draw ~35 mA at between -55 to -60 VDC of BIAS. If that's ok,
about all you can do
is pick two that 'look alike' internally and take the 'same' BIAS voltage, and
install them in a
transmitter. See if you can neutralize them, (check on 20, 15 and 10M,) and then
see how much
power they put out, especially on 10M.

If that all works out, then use them! Perhaps someone knows who made them, but
by then they
were building one tube design and marking it under several different types.
They probably
checked them at 16 kHz, but not at 30 MHz....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

el34guy@... wrote:
>
>

> Hello,
>
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> of moving and it contains a lot of brand new 6JB6A National Electronics tubes.
They are in the
> red and white boxes. I know most of what national electronics sold was
re-branded regular type
> tubes and your results may vary in a big way. I think on average they aren't
too well thought
> of. So far in inspecting a few of these tubes I have found the short variety
and also the
> taller tubes. Does anyone have experience with these as far as finding out
whether or not they
> are decent tubes? I haven't looked to see if the internal structures match up
to being
> sylvania's, rca's, philip's, or whomever. My guess is that they were produced
in the 80's and
> are likely the last batches of what somebody made and called 6JB6's. Anyone
know if they are
> the last of the sylvania's or philip's? Thanks for any feedback you guys have
on these.
>
> 73
> Mark
> W0NCL
>

Yahoo Groups Links

19592. Re: [DrakeRadio] Captions for the Pictures

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 16:38:25 UTC
From: Evan Rolek
Topic: 19581 Message: 19592

Fellow Drake Enthusiasts,

Captions would add more detail to the pictures but there is the issue of the time it takes to edit, insert, etc. the information. Since the website is a labor of love, we should all respect the wishes of the host and the time and energy available versus other life obligations. It is a thankless job (but we can all take a minute to thank the host can't we?!) and I for one greatly appreciate what has been available to me for "free".

Let's all enjoy those Drakes.

73,

Evan, K9SQG

-----Original Message-----
From: ko4bg1 <ko4bg1@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 24, 2014 11:39 am
Subject: [DrakeRadio] Captions for the Pictures

Is there no write up for the pictures in the pic section or am I just missing it? It would be very helpful if there were headings or short descriptions with each pic. But then I may be missing them somewhere
Woody

19593. Re: [DrakeRadio] TR4 crystal filter impedance?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 16:50:06 UTC
From: Garey Barrell
Topic: 19529 Message: 19593

Steve -

Early TR-4 filters were 2k in and out, same as the TR-3. When they went to the two filter scheme, the filters were 500 ohms in and out. The schematic shows 470 ohm, 5% resistors across
the in and out filter matching transformers.

The C-Line and 7 Line filters are all 50 ohm in and out.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hello All,
>
> Just out of interest. Does anyone happen to know what the TR-4 series SSB
> crystal filter input/output impedances are?
>
>

19594. Re: [DrakeRadio] national electronics 6JB6 Tubes

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 19:59:53 UTC
From: Robert Logan
Topic: 19589 Message: 19594

In my experience, red and white boxes contained RCA tubes. Not saying all tubes in red and white boxes were RCAs but all RCAs were in red and white boxes, at least those I handled, which were considerable. Bob, NZ5A

Sent from my iPhone

On Mar 24, 2014, at 10:30 AM, el34guy@... wrote:

Hello,

I just found a box of tubes that I had left behind at my dads place while I was in the process of moving and it contains a lot of brand new 6JB6A National Electronics tubes. They are in the red and white boxes. I know most of what national electronics sold was re-branded regular type tubes and your results may vary in a big way. I think on average they aren't too well thought of. So far in inspecting a few of these tubes I have found the short variety and also the taller tubes. Does anyone have experience with these as far as finding out whether or not they are decent tubes? I haven't looked to see if the internal structures match up to being sylvania's, rca's, philip's, or whomever. My guess is that they were produced in the 80's and are likely the last batches of what somebody made and called 6JB6's. Anyone know if they are the last of the sylvania's or philip's? Thanks for any feedback you guys have on these.

73
Mark
W0NCL

19595. Last Call - Voting closing on the Slater Grant

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 21:09:27 UTC
From: Garey Barrell
Topic: 19595 Message: 19595

OK guys, the voting closes in about an hour and the Slater is only ahead by 50 out of 30,000 votes...Like a tie.

If you have not voted, please do it now. This will help preserve a WW II ship and preserve a radio room full of Collins.

So - Once again, I will publish this link that will let you vote for the grant to support the USS Slater (Collins Equipped) radio room and ship restoration.

The grant will be given after the vote is closed in about one hour - so time is short.

This is a worthy cause to preserve history and honor our vets. The CCA supports this and hopes you will take the time to vote. It just takes a moment - literally. Just go to the link page and scroll down to the vote and click the Slater box and hit "VOTE".. She needs your support. It is a very close vote for this grant. If you have more than one computer, you can vote from each of them. The competition is doing it.

Tell your military oriented friends and pass this on to other "populations"

if you get a creative thought.

Go To:

http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-promotion/2053/

scroll down to the vote, click on the Slater line and hit vote.

If the URL wraps funny, repair it and fire away.

19596. Screws for AC4 power supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 22:19:35 UTC
From: Joe W2KJ
Topic: 19596 Message: 19596

Does anyone know the size of the metal screws used to secure the covers on the Drake AC4 power supply??

Anyone have any for sale??

Many thanks for any info.

73, Joe W2KJ
TR7, TR4CW/RIT, C-Line

19597. Re: [DrakeRadio] Screws for AC4 power supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 22:43:38 UTC
From: Paul Kraemer
Topic: 19596 Message: 19597

#4 X 3/8" sheet metal screw
Any hardware store has them---well almost any
Paul K0UYA

From: "Joe W2KJ" <jotrom@...>
Sent: Monday, March 24, 2014 5:19 PM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] Screws for AC4 power supply

> Does anyone know the size of the metal screws used to secure the covers on
> the Drake AC4 power supply??
>
> Anyone have any for sale??
>
> Many thanks for any info.
>
> 73, Joe W2KJ
> TR7, TR4CW/RIT, C-Line
>
> ---
>
> Yahoo Groups Links
>
>
>

19598. Re: [DrakeRadio] Screws for AC4 power supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 22:45:38 UTC
From: vacuuminded2@...
Topic: 19596 Message: 19598

Those are a 4-24 x 1/4" "thread forming" screw. I think this is the same screw used on the radio faceplate corners, around the meters on the L-4B, and a few other places.

I have a box of stainless steel ones at home, drop me a line if you don't want to order 100 from somewhere.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Mar 24, 2014, at 5:19 PM, Joe W2KJ <jotrom@...> wrote:

> Does anyone know the size of the metal screws used to secure the covers on the Drake AC4 power supply??
>
> Anyone have any for sale??
>
> Many thanks for any info.
>
> 73, Joe W2KJ
> TR7, TR4CW/RIT, C-Line
>
>

19599. Re: [DrakeRadio] Screws for AC4 power supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 22:49:00 UTC
From: vacuuminded2@...
Topic: 19596 Message: 19599

Yeah, plain 'ol #4 sheet metal screws will work too, if you don't mind the piercing tip instead of being blunt like the originals. Also the pitch may be slightly different, but that shouldn't really matter so long as the holes aren't stripped out.

C

Sent from my outdated iPhone wireless thingy

On Mar 24, 2014, at 5:43 PM, "Paul Kraemer" <elespe@...> wrote:

> #4 X 3/8" sheet metal screw
> Any hardware store has them---well almost any
> Paul K0UYA
>
> ----------
> From: "Joe W2KJ" <jotrom@...>
> Sent: Monday, March 24, 2014 5:19 PM
> To: <DrakeRadio@yahoogroups.com>
> Subject: [DrakeRadio] Screws for AC4 power supply
>
> > Does anyone know the size of the metal screws used to secure the covers on
> > the Drake AC4 power supply??
> >
> > Anyone have any for sale??
> >
> > Many thanks for any info.
> >
> > 73, Joe W2KJ
> > TR7, TR4CW/RIT, C-Line
> >
> > ------------------------------------
> >
> > Yahoo Groups Links
> >
> >
> >
>

19600. FS: Drake SW-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 22:49:16 UTC
From: <cdorn@...>
Topic: 19600 Message: 19600

Hi all,
I'm on the move, and am selling my Drake SW-4A, serial 2590. Radio is in very good to excellent condition,
and has had the electrolytic caps replaced. Some surface scratches on the cabinet, but the chassis is corrosion free. Comes with complete set of NOS tubes, and manual copy. Present tubes are strong, and it plays very well. Asking $300 plus freight from Western Canada. Please contact direct if interested. Photos available.

73,
Chris VE6IY

19601. FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-24 23:28:02 UTC
From: <w6mqi@...>
Topic: 19601 Message: 19601

I've been playing around with my Eico Rf signal generator injecting crystal freq's into an open crystal slot on the R4B which seems to work rather well I call it the Macgyver FS-4. What would be a standard injection level for optimum performance going into the R4B? I was using 73mv which was working okay. Also been looking at this http://www.qsl.net/k5bcq/Kits/Kits.html http://www.qsl.net/k5bcq/Kits/Kits.html Si570 it has a square wave output so I'll need some way of changing to a sine wave i.e. low pass filter. I have also used the elecraft XG-3 which also has a funky looking square wave output, but it does work. I assume a sine wave would be the best option here?

73, Dave

19602. Screws for AC4 power supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 00:00:23 UTC
From: Joe W2KJ
Topic: 19596 Message: 19602

Many thanks to all of those who responded to my question about the AC4 power supply screws.

I have a source and all the info.

73, Joe W2KJ

19603. Re: [DrakeRadio] Last Call - Voting closing on the Slater Grant

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 02:56:27 UTC
From: Jim Shorney
Topic: 19595 Message: 19603

It looks like the Slater won by 29 votes. Nicely done.

73

-Jim
NU0C

On Mon, 24 Mar 2014 17:09:27 -0400, Garey Barrell wrote:

>
>OK guys, the voting closes in about an hour and the Slater is only ahead by
>50 out of 30,000 votes...Like a tie.
>
>
>
>If you have not voted, please do it now. This will help preserve a WW II
>ship and preserve a radio room full of Collins.
>
>
>So - Once again, I will publish this link that will let you vote for the
>grant to support the USS Slater (Collins Equipped) radio room and ship
>restoration.
>
>The grant will be given after the vote is closed in about one hour - so time
>is short.
>
>This is a worthy cause to preserve history and honor our vets. The CCA
>supports this and hopes you will take the time to vote. It just takes a
>moment - literally. Just go to the link page and scroll down to the vote
>and click the Slater box and hit "VOTE".. She needs your support. It is a
>very close vote for this grant. If you have more than one computer, you can
>vote from each of them. The competition is doing it.
>
>Tell your military oriented friends and pass this on to other "populations"
>
>if you get a creative thought.
>
>Go To:
>
>http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-pro
>motion/2053/
>
>scroll down to the vote, click on the Slater line and hit vote.
>
>If the URL wraps funny, repair it and fire away.
>

>
>

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

19604. Re: Hum on the R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 04:19:52 UTC
From: <k6ctw@...>
Topic: 19580 Message: 19604

All,
Well, adding in a small resistor did help quite a bit. I ended up using an 8.2 ohm one that I had. Tried a 330, 100 and 51 ohm but they degraded the speaker output too much. The 8.2 ohm moved the hum down to a tolerable level and had only a little effect on the external speaker. Thanks Gary and all for the ideas etc.

73 - ken

19605. Re: [DrakeRadio] Last Call - Voting closing on the Slater Grant

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 07:12:17 UTC
From: Wolfgang (VK3WY)
Topic: 19595 Message: 19605

Even got a vote from down under, I am soooo happy.

Wolfgang VK3WY

----- Original Message -----
From: Jim Shorney
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, March 25, 2014 1:56 PM
Subject: Re: [DrakeRadio] Last Call - Voting closing on the Slater Grant

It looks like the Slater won by 29 votes. Nicely done.

73

-Jim
NU0C

On Mon, 24 Mar 2014 17:09:27 -0400, Garey Barrell wrote:

>
>OK guys, the voting closes in about an hour and the Slater is only ahead by
>50 out of 30,000 votes...Like a tie.
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>very close vote for this grant. If you have more than one computer, you can
>vote from each of them. The competition is doing it.
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>Tell your military oriented friends and pass this on to other "populations"
>
>if you get a creative thought.
>

>Go To:
>
>http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-pro
>motion/2053/
>
>scroll down to the vote, click on the Slater line and hit vote.
>
>If the URL wraps funny, repair it and fire away.
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"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

19606. Re: [DrakeRadio] Last Call - Voting closing on the Slater Grant

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 10:10:05 UTC
From: H. Bruce Smith
Topic: 19595 Message: 19606

Oh, so glad to see the way the vote went. I wasn't sure if Canadians
were permitted to vote or not but I voted anyway.
Bruce VE1ANH

On Tuesday, March 25, 2014 4:11:05 AM, Wolfgang (VK3WY) <vk3wy@optusnet.com.au> wrote:

Even got a vote from down under, I am soooo
happy.

Wolfgang VK3WY

----- Original Message -----
>From: Jim Shorney
>To: DrakeRadio@yahoogroups.com
>Sent: Tuesday, March 25, 2014 1:56 PM
>Subject: Re: [DrakeRadio] Last Call - Voting closing on the Slater Grant
>
>
>
>It looks like the Slater won by 29 votes. Nicely
done.
>
>73
>
>-Jim
>NU0C
>
>On Mon, 24 Mar 2014 17:09:27 -0400,
Garey Barrell wrote:
>
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It just takes a
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>>vote from each of them. The competition is
doing it.
>>
>>Tell your military oriented friends and pass this on
to other "populations"
>>
>>if you get a creative
thought.
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>>Go
To:
>>
>>http://blog.timesunion.com/giving/final-vote-in-the-capital-region-gives-pro
>>motion/2053/
>>
>>scroll
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called Swedish meatballs! It's a strange thing, but every sentient race has
its own version of these Swedish meatballs! I suspect it's one of those great
universal mysteries which will either never be explained, or which would drive

you mad if you ever learned the truth!" - G'Kar, Babylon 5
>
>

19607. Re: [DrakeRadio] FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 11:00:34 UTC
From: Gary S
Topic: 19601 Message: 19607

With the K5bcq unit, try barefoot... you just might be surprised !!

On Tuesday, 25 March 2014 10:28 AM, "w6mqi@..." <w6mqi@...> wrote:

>I've been playing around with my Eico Rf signal generator injecting crystal freq's into an open crystal slot on the R4B which seems to work rather well I call it the Macgyver FS-4. What would be a standard injection level for optimum performance going into the R4B? I was using 73mv which was working okay. Also been looking at
this http://www.qsl.net/k5bcq/Kits/Kits.html
>Si570 it has a square wave output so I'll need some way of changing to a sine wave i.e. low pass filter. I have also used the elecraft XG-3 which also has a funky looking square wave output, but it does work. I assume a sine wave would be the best option here?
>
>
>73, Dave
>
>
>

19608. TR7 small lamps..

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 11:03:32 UTC
From: <damico@...>
Topic: 19608 Message: 19608

Hello group,
does anybody know the specifications (voltage, current) of those 4 little lamps used in the TR7 (RIT, PTB, etc.), laconically indicated at page 2.3 of the service manual as DS3-DS6 "Lamp, miniature" ?
Thanks and 73,
Michele

19609. Re: [DrakeRadio] - Voting - Slater Grant

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 11:49:36 UTC
From: Chgypsy@...
Topic: 19609 Message: 19609

Don't know why not; Its called touri$m and $nowbirds. Carl wd8nhk

baysideanh@... writes:

Oh, so glad to see the way the vote went. I wasn't sure if Canadians
were permitted to vote or not but I voted anyway.
Bruce VE1ANH

19610. Re: [DrakeRadio] TR7 small lamps..

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 13:29:45 UTC
From: Evan Rolek
Topic: 19608 Message: 19610

I don't have the specs on them, not sure if they're the same as the ones in the L7 amplifier or not. Please remember that brighter, more current, etc. are not necessarily better. Heat and aging make that white plastic housing brittle and when it starts to crumble, it is difficult to repair; finding a replacement is very difficult. Hence, if one is going to err, going on the "less heat" side is preferred.

73,

Evan, K9SQG

-----Original Message-----
From: damico <damico@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Mar 25, 2014 7:06 am
Subject: [DrakeRadio] TR7 small lamps..

Hello group,
does anybody know the specifications (voltage, current) of those 4 little lamps used in the TR7 (RIT, PTB, etc.), laconically indicated at page 2.3 of the service manual as DS3-DS6 "Lamp, miniature" ?
Thanks and 73,
Michele

19611. RE: [DrakeRadio] FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 14:17:14 UTC
From: Doug Coffman
Topic: 19601 Message: 19611

Dave,

You may also have a look at the N3ZI DDS. I'm using it with my C-line, connected to the inj jack. I set the crystal switch to an open socket and the T-4XC set to receiver control. The DDS is set to take care of the IF and Receive frequency; no crystals needed or VFO for that matter. I had to build a small amp as the output is only 250 mV P-P. It has a very clean sine wave. The backlit display is quite nice compared to the standard black / green LCD.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w6mqi@yahoo.com
Sent: Monday, March 24, 2014 7:28 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] FS-4 injection level?

I've been playing around with my Eico Rf signal generator injecting crystal freq's into an open crystal slot on the R4B which seems to work rather well I call it the Macgyver FS-4. What would be a standard injection level for optimum performance going into the R4B? I was using 73mv which was working okay. Also been looking at this http://www.qsl.net/k5bcq/Kits/Kits.html

Si570 it has a square wave output so I'll need some way of changing to a sine wave i.e. low pass filter. I have also used the elecraft XG-3 which also has a funky looking square wave output, but it does work. I assume a sine wave would be the best option here?

73, Dave

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http://www.pdswireless.com

19612. Re: [DrakeRadio] TR7 small lamps..

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 14:27:01 UTC
From: Garey Barrell
Topic: 19608 Message: 19612

Those would probably be good candidates for LED replacement, for those reasons. They are run
from the 13.6 VDC Primary power, so a small, white LED with a current limiting resistor in some
shrink tubing, using the red wire that is there would be an easy fix. Just gotta get the polarity right!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Evan Rolek wrote:
>
>
> I don't have the specs on them, not sure if they're the same as the ones in the L7 amplifier
> or not. Please remember that brighter, more current, etc. are not necessarily better. Heat
> and aging make that white plastic housing brittle and when it starts to crumble, it is
> difficult to repair; finding a replacement is very difficult. Hence, if one is going to err,
> going on the "less heat" side is preferred.
>
> 73,
>
> Evan, K9SQG
>
> -----Original Message-----
> From: damico <damico@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Tue, Mar 25, 2014 7:06 am
> Subject: [DrakeRadio] TR7 small lamps..
>
>
> Hello group,
> does anybody know the specifications (voltage, current) of those 4 little lamps used in the
> TR7 (RIT, PTB, etc.), laconically indicated at page 2.3 of the service manual as DS3-DS6
> "Lamp, miniature" ?
> Thanks and 73,
> Michele
>
>

19613. RE: [DrakeRadio] FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 14:55:39 UTC
From: <w6mqi@...>
Topic: 19601 Message: 19613

Doug,
I have looked at the N3ZI kits before and they look very interesting. My idea was to retain the original VFO's on the Drakes so I was planning on injecting through a spare crystal socket like the FS-4 did. Not really looking for a DDS VFO with LCD display, just looking to be able to do GC with the Drakes while keeping the original workings of the rigs. I envision a FS-4 look a like box maybe Arduino based or what ever with three rotary encoders to dial up frequency's like the FS-4. Anyway just in the dreaming stage right now nothing set in stone.

Thanks Dave.

19614. Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 20:01:29 UTC
From: <rochep@...>
Topic: 19614 Message: 19614

Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in unknown shape (other than the obvious dim-bulb tester and variac)?

paul

19615. RE: [DrakeRadio] FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 20:13:04 UTC
From: Doug Coffman
Topic: 19601 Message: 19615

Dave,

I have retained both the VFO on the Receiver and the transmitter; after finalizing the layout in an external box, it will be installed in a separate enclosure. Right now, all of the parts and pieces are on my bench for testing purposes. At any point that I want to tune with the Drake VFO, I can just uncouple the N3ZI DDS and turn the crystal switch to the correct crystal and tune as normal. My first goal was to make no modifications to the rig, otherwise I wouldn't have entertained the idea. The second goal was to have a general coverage receiver without the need to buy crystals at $15 per. The third goal was to be able to hit the memory button and go exactly to a frequency without the guesswork of the VFO dial and then tuning to other's voices. The other nice addition is having a RIT function. Probably the biggest enticement for me however; was some experimentation and learning along the way.

The N3ZI could be used exactly as you described, take the output and inject it into a crystal socket, set the frequency to the required crystal frequency and then tune with the VFO. Same as the one you were using. I don't know anything about the kit that you are looking at, but thought I'd mention the N3Zi as I had used this one. It is very cost efficient and will do <1 MHz up to 34MHz filtered. It also has an RS-232 interface for configuration changes etc. It also has an unfiltered output if you need to do different filtering.

73,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w6mqi@...
Sent: Tuesday, March 25, 2014 10:56 AM
To: DrakeRadio@yahoogroups.com
Subject: RE: [DrakeRadio] FS-4 injection level?

Doug,

I have looked at the N3ZI kits before and they look very interesting. My idea was to retain the original VFO's on the Drakes so I was planning on injecting through a spare crystal socket like the FS-4 did. Not really looking for a DDS VFO with LCD display, just looking to be able to do GC with the Drakes while keeping the original workings of the rigs. I envision a FS-4 look a like box maybe Arduino based or what ever with three rotary encoders to dial up frequency's like the FS-4. Anyway just in the dreaming stage right now nothing set in stone.

Thanks Dave.

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http://www.pdswireless.com

19616. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 20:16:06 UTC
From: Paul Kraemer
Topic: 19614 Message: 19616

Paul
That is about all you can do and then order a rebuild kit from Jeff or Mark.
Or just do that first and avoid possibility of damaging the T4XC
Paul K0UYA
Electronic Specialties
manufacturer of the ES4AC-4PS rebuild kit

From: rochep@...
Sent: Tuesday, March 25, 2014 3:01 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Testing a "new" AC4

Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in unknown shape (other than the obvious dim-bulb tester and variac)?

paul

19617. RE: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 20:18:02 UTC
From: Doug Coffman
Topic: 19614 Message: 19617

Paul,

Garey or one of the guys will chime in shortly with better info, but in the meantime here is my two cents.

Like chasing a wabbit, be wery wery wery careful; as you know, the power supply contains very high voltages. I'm sure you know this but the disclaimer has to be there.

I never connect an unknown power supply to one of the drakes. I short the molex plug and measure all of the unloaded voltages at the plug. I run the bias pot up and down to ensure that I have the correct range of Bias. The second thing I do, is install either one of the Sunlight energy systems or K0UYA power supply rebuilds. If the power supply tests ok, odds are it might be ok for service, but I take my Drakes very seriously and I would really be mad at myself If I burnt one down because the bias failed etc etc. A $75 rebuild is easy to justify for me on a rig that I plan on keeping.

Hope you get the answers that you are looking for.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of rochep@...
Sent: Tuesday, March 25, 2014 4:01 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Testing a "new" AC4

Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in unknown shape (other than the obvious dim-bulb tester and variac)?

paul

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http://www.pdswireless.com

19618. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 21:18:19 UTC
From: Al Parker
Topic: 19614 Message: 19618

Hi Paul,
Other than just replacing all the caps, you could use an ESR tester to check the electrolytics. I've seen lots of Drake supplies that are OK in that respect, and usable. The bias caps are usually the first to go, and they should be replaced just for safety anyhow, since they can cause you a lot of grief, e.g. melted down final tubes with out warning.
Doing the full rebuild is something that you'll never regret doing, tho'.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 3/25/2014 4:01 PM, rochep@... wrote:
> Tomorrow I should receive a "was working when I last used it a few years
> ago" AC4 to power my "new" T4XC. How exactly would you proceed with
> "testing" the AC4 and then, in turn, a T4XC in unknown shape (other than
> the obvious dim-bulb tester and variac)?
>
> paul
>

19619. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 22:45:34 UTC
From: Richard Knoppow
Topic: 19614 Message: 19619

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 25, 2014 1:01 PM
Subject: [DrakeRadio] Testing a "new" AC4

> Tomorrow I should receive a "was working when I last used
> it a few years ago" AC4 to power my "new" T4XC. How
> exactly would you proceed with "testing" the AC4 and then,
> in turn, a T4XC in unknown shape (other than the obvious
> dim-bulb tester and variac)?
>
> paul

You can run the AC-4 without connecting it to anything.
Short pins 1 and 4 on the plug using a short bit of wire to
make the jumper. Strip about 1/4 inch off each end and push
into the plug. Now when the supply is plugged into the line
you can measure the open circuit voltages at the connector.
Use some caution because the plate voltage is quite high, on
the order of 700 volts, and can do you in.
You can fire it up first using a light bulb in series
with one side of the line to check for an immediate short.
The ideal way to do this is to use a metered Variac but not
many hams have them.
You can do some checking before powering up the supply.
Check the diodes for shorts or opens, this can be done with
a VOM. You can check to see that none of the electrolytic
caps are shorted but a VOM will not tell you if they have
high leakage unless its close to being a short. Note that
what you want to check is _parallel_ resistance or leakage,
not series resistance. High ESR in a filter cap will cause
high ripple but not short the supply. When the supply has
been running for a few minutes check the voltages. Note
that you may get somewhat higher voltages than are shown on
the AC-4 schematic due to the lack of a load.
Especially make sure the bias supply is working and
that the adjustment works.
There are many warnings about replacing electrolytic
caps but in my experience they are rather more reliable than
is the popular wisdom. The one thing that electrolytic caps
do not like is being left without voltage for very long
periods of time (years) because they depend on the voltage
to maintain the capacitance mechanism. If left without
voltage they will slowly stop being capacitors. Even though

there is a military manual on re-forming electrolytic caps I
don't trust this procedure at all. New caps for the AC-4 are
available from several sources. If you don't know the
history of the supply its best to invest in one of the kits
and replace all the parts that go bad with time. The kits
are not expensive and are not difficult to install.
Having said all that I think if your supply survives
being fired up and run for an hour on its own its probably
safe to use it as is.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19620. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 23:18:55 UTC
From: <rochep@...>
Topic: 19614 Message: 19620

Richard, are you sure it is not pins 1 and 2 that should be tied together? That is what the Heathkit Shop rebuild for AC4 calls for. I can replace eventually, but why fix something that is not broken?

paul

19621. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 23:23:15 UTC
From: Chgypsy@...
Topic: 19614 Message: 19621

Quick peek at schematic, Paul is correct. Carl wd8nhk

, rochep@comcast.net writes:

Richard, are you sure it is not pins 1 and 2 that should be tied together?
That is what the Heathkit Shop rebuild for AC4 calls for. I can replace
eventually, but why fix something that is not broken?

paul

19622. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 23:28:55 UTC
From: Doug
Topic: 19614 Message: 19622

It's pins 1-2.

You can get by with a good working powersupply and may outlast you or it may go tomorrow. $75 just seems to be a good investment or insurance to protect a rig that you plan to keep.

It's personal preference. You will hear pros and cons both ways.

Sent from my iPhone

> On Mar 25, 2014, at 19:23, Chgypsy@... wrote:
>
> Quick peek at schematic, Paul is correct. Carl wd8nhk
>
> , rochep@... writes:
>
>
> Richard, are you sure it is not pins 1 and 2 that should be tied together? That is what the Heathkit Shop rebuild for AC4 calls for. I can replace eventually, but why fix something that is not broken?
>
> paul
>

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19623. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 23:33:42 UTC
From: Steve Wedge
Topic: 19614 Message: 19623

Paul, I bring unknown AC-3's and AC-4's up slowly with a Variac and monitor the input current. By "slowly", I'm talking over a period of 10 - 15 minutes. If it's going to smoke, it's best to get it over with and rebuild!

The voltage busses vary from their nominal values by a fair amount and nowadays are typically on the high side, since most US AC mains are at or above 120 VAC. As long as you have "approximately" 750, 250 and -65 VDC, you're good. Filaments should be around 12.6 VAC but can be over 13 with higher mains.

I'd use it to play for a while, but I'd get a rebuild kit ASAP and just get the job done to stop worrying. Until you rebuild it, always monitor your PLATE meter and NEVER leave the set unattended!

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@...
Sent: Tuesday, March 25, 2014 4:01 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Testing a "new" AC4

Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in unknown shape (other than the obvious dim-bulb tester and variac)?

paul

19624. Re: Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 00:50:36 UTC
From: <rochep@...>
Topic: 19614 Message: 19624

I plan to rebuild if it's not a complete junker (shorted transformer), but I GOTTA play with my new TX at least a little!!

And ALL my boat-anchors are unplugged when I leave the room. Period.

paul

19625. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:02:58 UTC
From: Richard Knoppow
Topic: 19614 Message: 19625

```
----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, March 25, 2014 4:18 PM
Subject: Re: [DrakeRadio] Testing a "new" AC4

> Richard, are you sure it is not pins 1 and 2 that should
> be tied together? That is what the Heathkit Shop rebuild
> for AC4 calls for. I can replace eventually, but why fix
> something that is not broken?
>
> paul

You are right, pins 1 and 2. I had an optical illusion
looking at the schematic.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...
```

19626. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:16:13 UTC
From: <mgilger@...>
Topic: 19614 Message: 19626

The pin breakdown is in the following attachment.

http://wb4hfn.com/DRAKE/DrakeArticles/AC4_Troubleshooting/Drake_AC3-AC4_Troubleshooting.htm

Mark

19627. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:16:30 UTC
From: Garey Barrell
Topic: 19614 Message: 19627

Paul -

Absent an ESR meter, the dim-bulb is the best start up. Do not do the ''internet expert' bring
the voltage up 10 volts per hour' garbage!

Absolutely first thing is to check the fuse! It should be either a 5A or a 6.25A 'Slo Blo' fuse. Next I would run an ohmmeter check on each of the electrolytic caps to spot any dead ones.

The supply will run 'unassisted' by shorting Pins 1 and 2 together. You should see approximately the following voltages with 120 VAC input.

+700 VDC

+270 - 280 VDC

-50 to - 90 VDC

12.6 VAC.

If you've already inspected the T-4XC, plug and play with the dim-bulb tester. If ok, short out
the bulb and play!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my
> "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in
> unknown shape (other than the obvious dim-bulb tester and variac)?
>
> paul
>
>

19628. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:25:41 UTC
From: Garey Barrell
Topic: 19614 Message: 19628

Paul -
One last thing I should have added. Do NOT leave the supply/transmitter unattended, even in STANDBY. A BIAS supply failure WILL kill the transmitter, possibly along with the power supply,
not to mention a fire hazard.

While I still have supplies with the original electrolytics and low ESR, the safest approach is
to install one of the upgrade kits from either Jeff or Mike. Either kit replaces all the pertinent parts in the supply, with the primary differences the mechanical arrangement of those
parts. Either will also probably last another 30 years!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Tomorrow I should receive a "was working when I last used it a few years ago" AC4 to power my
> "new" T4XC. How exactly would you proceed with "testing" the AC4 and then, in turn, a T4XC in
> unknown shape (other than the obvious dim-bulb tester and variac)?
>
> paul
>
>

19629. Re: [DrakeRadio] Testing a "new" AC4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:28:48 UTC
From: Garey Barrell
Topic: 19614 Message: 19629

Paul -

Yep, Pins 1 and 2. I would strongly suggest replacing at least the BIAS diode and electrolytics. If one of the other supplies quits, the radio just quits. If the BIAS supply quits, VERY bad things happen, starting with destruction of expensive PA tubes, likely before
you can hit the kill switch! :-)

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
>
>
> Richard, are you sure it is not pins 1 and 2 that should be tied together? That is what the
> Heathkit Shop rebuild for AC4 calls for. I can replace eventually, but why fix something that
> is not broken?
>
> paul
>
>

19630. Fwd: [qrp-tech]

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 01:57:49 UTC
From: Garey Barrell
Topic: 19630 Message: 19630

From a post on the <qrp-tech> Yahoo group... Read the entire sentence!

>
> Jim and I have lots of Red?s QRP items which I may also post here. There?s a Tuna Tin 2, a QRP
> Ultimate Transmatch, and a variety of tube gear, as well as 5 Drake receivers and transmitters.
>
> George Dorner W9ZSJ
> george@... <mailto:george@...>
>

19631. Re: [DrakeRadio] Fwd: [qrp-tech]

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-25 02:21:14 UTC
From: Joe - W7RKN
Topic: 19630 Message: 19631

Any list yet, of what Drakes are available?

Joe - W7RKN

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
Subject: [DrakeRadio] Fwd: [qrp-tech]

>
> From a post on the <qrp-tech> Yahoo group... Read the entire sentence!
>
>
>>
>> Jim and I have lots of Red?s QRP items which I may also post here. There?s
>> a Tuna Tin 2, a QRP
>> Ultimate Transmatch, and a variety of tube gear, as well as 5 Drake
>> receivers and transmitters.
>>
>> George Dorner W9ZSJ
>> george@... <mailto:george@...>
>>
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

19632. Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 03:47:40 UTC
From: <w6mqi@...>
Topic: 19601 Message: 19632

Doug, Thanks for the explanation of what you have done sounds simple enough I just might give this option a try. What output level did you eventually end up with to drive the rig?

73, Dave

19633. RE: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 15:36:05 UTC
From: Doug Coffman
Topic: 19601 Message: 19633

Dave,

Garey had told me that I needed 2Vrms to supply sufficient drive. He also let me know I needed to find out what the impedance of the Inj jack was however; I have been unable to discover this information. ON 80M – 14M my buffered amp DDS combination will supply 1.9Vrms at 50 ohms, at 15 and 10M the output drops to 1.3Vrms and 1Vrms respectively. The sensitivity is identical to the receiver without the DDS and buffered amp connected for the exception of 10M. 10M works well but suffers a little bit, I see a drop of about 1 S unit using the DDS / amp combination. I am still experimenting with the buffered amp to try and get a little more out of it on the higher frequencies without distorting the signal.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w6mqi@...
Sent: Tuesday, March 25, 2014 11:48 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: FS-4 injection level?

Doug,

Thanks for the explanation of what you have done sounds simple enough I just might give this option a try. What output level did you eventually end up with to drive the rig?

73, Dave

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19634. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 15:38:00 UTC
From: Lee Hiers
Topic: 19601 Message: 19634

On Wed, Mar 26, 2014 at 11:36 AM, Doug Coffman <dcoffman@...>wrote:

> I am still experimenting with the buffered amp to try and get a little
> more out of it on the higher frequencies without distorting the signal.
>

Doug,

What are you using for a buffer?

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

19635. RE: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 15:44:48 UTC
From: Doug Coffman
Topic: 19601 Message: 19635

Lee,

Right now, I am using the Kits and Parts design. Every design that I have come across offers about 20db gain.

I am using the raw output of the N3ZI DDS and filtering at the output of the buffered amp. Its output is in the order of 250mV P-P. I calculated a 3db frequency of 40MHz and am using a 5 pole filter. I may have to increase the range of the filter to get the output up at the higher frequencies. Remember that I am injecting the operating frequency plus the IF frequency so I'm in the 33MHz range for 10M.

Have you had any more success with your setup and if so what voltages and setup are you getting?

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Lee Hiers
Sent: Wednesday, March 26, 2014 11:38 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: FS-4 injection level?

On Wed, Mar 26, 2014 at 11:36 AM, Doug Coffman <dcoffman@... <mailto:dcoffman@...> > wrote:

I am still experimenting with the buffered amp to try and get a little more out of it on the higher frequencies without distorting the signal.

Doug,

What are you using for a buffer?

73 de Lee

--

Lee Hiers, AA4GA

www.aa4ga.com <http://www.aa4ga.com>

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19636. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 16:14:06 UTC
From: Lee Hiers
Topic: 19601 Message: 19636

On Wed, Mar 26, 2014 at 11:44 AM, Doug Coffman <dcoffman@...>wrote:

> I am using the raw output of the N3ZI DDS and filtering at the output of
> the buffered amp. Its output is in the order of 250mV P-P. I calculated a
> 3db frequency of 40MHz and am using a 5 pole filter. I may have to
> increase the range of the filter to get the output up at the higher
> frequencies. Remember that I am injecting the operating frequency plus the
> IF frequency so I'm in the 33MHz range for 10M.
>

Is your filter LP...what's the cutoff? What is your insertion loss?

Have you had any more success with your setup and if so what voltages and
> setup are you getting?
>

I'm going to inject lower band frequency plus 11.1 MHz, or for 10MHz, my oscillator is running at 21.1 MHz.

I'm using an AD9850 module off eBay, which (memory at work here) I think is about 250 mV or so. I'm using a home-made version of the same buffer you are and am getting about 7 V P-P driving 50 ohms...I actually need to turn mine down! That's at an oscillator frequency of 21.1 MHz. I'm running my buffer off 12 V FWIW...and the 2N5109 is running pretty warm without a heatsink.

My next step is to measure the output across the 11.6 through 40.6 MHz spectrum (not sure I'll get output that high with the AD9850) and see where it falls off and how much. From there, I'll play with the bias in the Diz buffer and shoot for 2 to 2.5 volts.

I'm not filtering my output...I'm only using in on receive, and the R-4's tuned circuits should take care of hearing anything from the harmonics I would think...the 9850 puts out a sine wave.

I don't know if the R-4 will be even slightly usable at 500 to 1500 KHz, but since it's only a quick programming change, I figured why not try it!

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

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19637. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 16:35:17 UTC
From: Garey Barrell
Topic: 19601 Message: 19637

Doug -

One of us has made a mistake! The INJ signal level is 2-3 V peak-to-peak, not RMS. The impedance is 100-200 ohms.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug Coffman wrote:
>
>
> Lee,
>
> Right now, I am using the Kits and Parts design. Every design that I have come across offers
> about 20db gain.
>
> I am using the raw output of the N3ZI DDS and filtering at the output of the buffered amp.
> Its output is in the order of 250mV P-P. I calculated a 3db frequency of 40MHz and am using a
> 5 pole filter. I may have to increase the range of the filter to get the output up at the
> higher frequencies. Remember that I am injecting the operating frequency plus the IF frequency
> so I’m in the 33MHz range for 10M.
>
> Have you had any more success with your setup and if so what voltages and setup are you getting?
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Lee Hiers
> *Sent:* Wednesday, March 26, 2014 11:38 AM
> *To:* DrakeRadio@yahoogroups.com
> *Subject:* Re: [DrakeRadio] Re: FS-4 injection level?
>
> On Wed, Mar 26, 2014 at 11:36 AM, Doug Coffman <dcoffman@...
> <mailto:dcoffman@...>> wrote:
>
> I am still experimenting with the buffered amp to try and get a little more out of it on
> the higher frequencies without distorting the signal.

>
> Doug,
>
> What are you using for a buffer?
>
> 73 de Lee
>
> --
>
> Lee Hiers, AA4GA
>
> www.aa4ga.com <http://www.aa4ga.com>
>
> Submit your QRP DXCC totals to www.qrpdx.com <http://www.qrpdx.com>!
>
>
> ---

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>
>
>

19638. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 16:43:19 UTC
From: Garey Barrell
Topic: 19601 Message: 19638

Lee -

The 9851 DDS from eBay will cover the frequencies needed. Just a few dollars more.

Yes, 7 V p-p is a bit much! 2-3 V p-p is about right, 100 - 200 ohm input Z.

The R-4(any) will 'work' below 1500 kHz, but the it's outside the range of the Preselector, which ends at 1500. Most BC stations are strong enough that it won't matter, but you won't be
doing any 'DX'ing' the BC band with it!!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Lee Hiers wrote:
>
>
> On Wed, Mar 26, 2014 at 11:44 AM, Doug Coffman <dcoffman@...
> <mailto:dcoffman@...>> wrote:
>
> I am using the raw output of the N3ZI DDS and filtering at the output of the buffered
> amp. Its output is in the order of 250mV P-P. I calculated a 3db frequency of 40MHz and
> am using a 5 pole filter. I may have to increase the range of the filter to get the
> output up at the higher frequencies. Remember that I am injecting the operating frequency
> plus the IF frequency so I’m in the 33MHz range for 10M.
>
>
> Is your filter LP...what's the cutoff? What is your insertion loss?
>
> Have you had any more success with your setup and if so what voltages and setup are you
> getting?
>
>
> I'm going to inject lower band frequency plus 11.1 MHz, or for 10MHz, my oscillator is running
> at 21.1 MHz.
>
> I'm using an AD9850 module off eBay, which (memory at work here) I think is about 250 mV or
> so. I'm using a home-made version of the same buffer you are and am getting about 7 V P-P
> driving 50 ohms...I actually need to turn mine down! That's at an oscillator frequency of
> 21.1 MHz. I'm running my buffer off 12 V FWIW...and the 2N5109 is running pretty warm

without
> a heatsink.
>
> My next step is to measure the output across the 11.6 through 40.6 MHz spectrum (not sure I'll
> get output that high with the AD9850) and see where it falls off and how much. From there,
> I'll play with the bias in the Diz buffer and shoot for 2 to 2.5 volts.
> I'm not filtering my output...I'm only using in on receive, and the R-4's tuned circuits
> should take care of hearing anything from the harmonics I would think...the 9850 puts out a
> sine wave.
>
> I don't know if the R-4 will be even slightly usable at 500 to 1500 KHz, but since it's only a
> quick programming change, I figured why not try it!
>
>

19639. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 17:04:52 UTC
From: Lee Hiers
Topic: 19601 Message: 19639

On Wed, Mar 26, 2014 at 12:43 PM, Garey Barrell <k4oah@...>wrote:

The 9851 DDS from eBay will cover the frequencies needed. Just a few
> dollars more.
>
True, but I've got a handful of the 9850s and one is already soldered
in...that, plus I'm not terribly interested in using the R-4 on 10m, so, at
least for the first one, I'll just go with the cheapo.

> Yes, 7 V p-p is a bit much! 2-3 V p-p is about right, 100 - 200 ohm input
> Z.
>
OK, I'll look at around 150 ohms then.

> The R-4(any) will 'work' below 1500 kHz, but the it's outside the range of
> the Preselector,
> which ends at 1500. Most BC stations are strong enough that it won't
> matter, but you won't be
> doing any 'DX'ing' the BC band with it!!
>
That's really what I expected...figured I'd just use it for WSB and
such...If I was really serious about BCB, I'd probably build a
converter....hmmmm.

Thanks & 73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

19640. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 17:26:57 UTC
From: Garey Barrell
Topic: 19601 Message: 19640

Lee -

This may interest you.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Lee Hiers wrote:
>
>
> On Wed, Mar 26, 2014 at 12:43 PM, Garey Barrell <k4oah@...
> <mailto:k4oah@...>> wrote:
>
> The 9851 DDS from eBay will cover the frequencies needed. Just a few dollars more.
>
> True, but I've got a handful of the 9850s and one is already soldered in...that, plus I'm not
> terribly interested in using the R-4 on 10m, so, at least for the first one, I'll just go with
> the cheapo.
>
> Yes, 7 V p-p is a bit much! 2-3 V p-p is about right, 100 - 200 ohm input Z.
>
> OK, I'll look at around 150 ohms then.
>
> The R-4(any) will 'work' below 1500 kHz, but the it's outside the range of the Preselector,
> which ends at 1500. Most BC stations are strong enough that it won't matter, but you won't be
> doing any 'DX'ing' the BC band with it!!
>
> That's really what I expected...figured I'd just use it for WSB and such...If I was really
> serious about BCB, I'd probably build a converter....hmmmm.
>
> Thanks & 73 de Lee
> --
> Lee Hiers, AA4GA
> www.aa4ga.com <http://www.aa4ga.com>
>
> Submit your QRP DXCC totals to www.qrpdx.com <http://www.qrpdx.com>!
>

>
>
>

[Non-text portions of this message have been removed]

19641. looking to have some UV-3 Repair Done

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 18:38:49 UTC
From: <k9mpmradio@...>
Topic: 19641 Message: 19641

I have a limited amount of time after work with my new job. I have 4 repeaters to maintain and would like to have someone look at a issue with my UV 3 radio. The radio has all 3 bands installed. Lost 2 meter receive last summer. Transmits good on 2 meters . All other bands are working but could use a alignment also. thanks
Dean
K9QB

19642. RE: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 19:10:00 UTC
From: Doug Coffman
Topic: 19601 Message: 19642

Garey,

I cut a snipped from a previous thread; it’s of no consequence but this is why I was chasing 2Vrms, LOL! If 2 Vpp will take care of it then I wonder why my sensitivity is low on 10M. The output waveform is clean and undistorted, I wonder if the impedance mismatch may be to blame here?

Thanks so much for your help!

Doug – N9XTF

Quoting Garey Barrell

Doug -

I haven't tried it, but the first step would be to determine the input impedance of the INJ jacks on the R-4C and T-4XC.
Then a simple transformer will probably suffice. You need about 1.5 - 2 VRMS at the PreMixer frequency (7.3 - 35.6 MHz)
into either INJ input.

You might take a look at the PHSNA project Yahoo group for ideas. We used either a 2N5109 buffer or an MCI ERA-3+ MMIC
to get about +10 dBm into 50 ohms (0.7 VRMS) from a 9850/51. You need about +20 dBm _into 50 ohms_. I suspect the
input impedance is considerably higher, allowing use of a simple transformer to get the higher voltage.

Really not nearly as simple a project as it looks, to do it right. Do you REALLY need to know your frequency to better
than +/- 100 kHz?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
< www.k4oah.com <http://www.k4oah.com> >

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Wednesday, March 26, 2014 12:35 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: FS-4 injection level?

Doug -

One of us has made a mistake! The INJ signal level is 2-3 V peak-to-peak, not RMS. The impedance is 100-200 ohms.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

Doug Coffman wrote:
>
>
> Lee,
>
> Right now, I am using the Kits and Parts design. Every design that I have come across offers
> about 20db gain.
>
> I am using the raw output of the N3ZI DDS and filtering at the output of the buffered amp.
> Its output is in the order of 250mV P-P. I calculated a 3db frequency of 40MHz and am using a
> 5 pole filter. I may have to increase the range of the filter to get the output up at the
> higher frequencies. Remember that I am injecting the operating frequency plus the IF frequency
> so I'm in the 33MHz range for 10M.
>
> Have you had any more success with your setup and if so what voltages and setup are you getting?
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Lee Hiers
> *Sent:* Wednesday, March 26, 2014 11:38 AM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] Re: FS-4 injection level?
>
> On Wed, Mar 26, 2014 at 11:36 AM, Doug Coffman <dcoffman@pdswireless.com <mailto:dcoffman@...%20%0b>
> <mailto:dcoffman@pdswireless.com>> wrote:
>
> I am still experimenting with the buffered amp to try and get a little more out of it on
> the higher frequencies without distorting the signal.
>
> Doug,
>
> What are you using for a buffer?
>
> 73 de Lee
>

> --
>
> Lee Hiers, AA4GA
>
> www.aa4ga.com <http://www.aa4ga.com> <http://www.aa4ga.com>
>
> Submit your QRP DXCC totals to www.qrpdx.com <http://www.qrpdx.com>
<http://www.qrpdx.com>!
>
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> --
> PDSWireless
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> Get it now! <http://www.pdswireless.com>
>
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

19643. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 19:40:38 UTC
From: Garey Barrell
Topic: 19601 Message: 19643

OK! You win! :-)

Shoulda been p-p...

You could try a 50 ohm termination and a coupling capacitor. A ferrite bifilar matching transformer would be more efficient.

Garey - K4OAH
Glen Allen, VA

On Mar 26, 2014, at 3:10 PM, "Doug Coffman" <dcoffman@...> wrote:

>
>
> Garey,
>
> I cut a snipped from a previous thread; it’s of no consequence but this is why I was chasing 2Vrms, LOL! If 2 Vpp will take care of it then I wonder why my sensitivity is low on 10M. The output waveform is clean and undistorted, I wonder if the impedance mismatch may be to blame here?
>
> Thanks so much for your help!
>
> Doug – N9XTF
>
> Quoting Garey Barrell
>
> Doug -
>
> I haven't tried it, but the first step would be to determine the input impedance of the INJ jacks on the R-4C and T-4XC.
> Then a simple transformer will probably suffice. You need about 1.5 - 2 VRMS at the PreMixer frequency (7.3 - 35.6 MHz)
> into either INJ input.
>
> You might take a look at the PHSNA project Yahoo group for ideas. We used either a 2N5109 buffer or an MCI ERA-3+ MMIC
> to get about +10 dBm into 50 ohms (0.7 VRMS) from a 9850/51. You need about +20 dBm _into 50 ohms_. I suspect the
> input impedance is considerably higher, allowing use of a simple transformer to get the higher voltage.
>
> Really not nearly as simple a project as it looks, to do it right. Do you REALLY need to know your frequency to better
> than +/- 100 kHz?
>

> 73, Garey - K4OAH
> Glen Allen, VA
>
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> < www.k4oah.com>
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> > Doug – N9XTF
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> > *Subject:* Re: [DrakeRadio] Re: FS-4 injection level?
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> > Doug,
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> > 73 de Lee
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> >
> > Lee Hiers, AA4GA
> >
> > www.aa4ga.com <http://www.aa4ga.com>
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> >
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> Quick and Simple Internet Access
> Get it now!
>
>
>

19644. DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 19:27:14 UTC
From: <s.whitehouse42@...>
Topic: 19644 Message: 19644

I am in the process of putting together a DDS VFO to use with my Drake 2NT xmtr. One feature of the vfo is to shift the frequency away from the receiver band pass by switching a pin on the processor to ground during receive. My first thought was to use the vfo key jack on the 2NT but it has -100V DC on it during key up. I need a switch to go to ground during key up. Has anyone on the list done this already or have ideas on how I should proceed? Would it be possible use this -100 volts to key a transistor switch to control a relay without affecting the operation of V1A XTAL OSC?
Thanks for any help,
Stew ke4yh

19645. Re: [DrakeRadio] DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 21:51:25 UTC
From: Guido Tedeschi
Topic: 19644 Message: 19645

Hello Stew,
from the schematic diagram, the VFO KEY is connected to the cathode
of the oscillator and it is switched to ground during TX.
During RX, it seems that you will have +80V, not -100V, have you
measured that voltage?
If the voltage is +80V, you can use the VFO KEY to drive a low voltage
digital input with pull-up resistor, if you add a 1N400x diode in
series, with cathode to VFO KEY and anode to your digital input, to
block the +80V.
73 de Guido, ik2bcp

Il 26/03/2014 20:27, s.whitehouse42@... ha scritto:
>
> I am in the process of putting together a DDS VFO to use with my Drake
> 2NT xmtr. One feature of the vfo is to shift the frequency away from
> the receiver band pass by switching a pin on the processor to ground
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> 2NT but it has -100V DC on it during key up. I need a switch to go to
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> ideas on how I should proceed?
>
> Would it be possible use this -100 volts to key a transistor switch to
> control a relay without affecting the operation of V1A XTAL OSC?
> Thanks for any help,
> Stew ke4yh
>

19646. Re: [DrakeRadio] DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 23:22:35 UTC
From: Stewart
Topic: 19644 Message: 19646

On 3/26/2014 5:51 PM, Guido Tedeschi wrote:
>
> Hello Stew,
> from the schematic diagram, the VFO KEY is connected to the cathode
> of the oscillator and it is switched to ground during TX.
> During RX, it seems that you will have +80V, not -100V, have you
> measured that voltage?
> If the voltage is +80V, you can use the VFO KEY to drive a low voltage
> digital input with pull-up resistor, if you add a 1N400x diode in
> series, with cathode to VFO KEY and anode to your digital input, to
> block the +80V.
> 73 de Guido, ik2bcp
>
>
Hi Guido,
Thanks for your response. I measure -100V (99.6) at the VFO key jack during receive. Of course it goes to 0 when xmtr is keyed. By connecting the diode's anode to the VFO KEY it blocks the -100V and the resistance drops to about 22 Ohms, across the diode, with key down. I need to think about how this helps me. Maybe this 22 Ohms can act as a pull-down on the processors analog input pin.
FYI, the DDSVFO is from the AD7C Blog site.
73
Stew ke4yh

19647. WTB AC-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-26 23:32:41 UTC
From: Mike
Topic: 19647 Message: 19647

Wanted to buy AC-4. If you have one in excess of your needs.
Contact me direct off line at w0meg at aol com with price.

Thanks
Mike

Sent from my iPhone

19648. Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 00:32:47 UTC
From: Greg Beat
Topic: 19644 Message: 19648

Stew -

Use the Keyall PC board from WB9KZY (Jackson Harbor Kits)
in the Drake 2-NT, that will address the voltage issue.
http://wb9kzy.com/keyall.htm

Sent from iPad Air

19649. Re: [DrakeRadio] Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 00:59:28 UTC
From: Stewart
Topic: 19644 Message: 19649

On 3/26/2014 8:32 PM, Greg Beat wrote:
>
> Stew -
>
> Use the Keyall PC board from WB9KZY (Jackson Harbor Kits)
> in the Drake 2-NT, that will address the voltage issue.
> http://wb9kzy.com/keyall.htm
>
> Sent from iPad Air
>
> __·_,_·__
Thanks Greg,
I think I have one of those around that I used with a 30L1. Should it be interfaced with the VFO KEY jack?
Stew ke4yh

19650. Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 01:04:49 UTC
From: <k6ctw@...>
Topic: 19644 Message: 19650

You might want to check out this month's Electric Radio magazine as i have just such a circuit in there. It will work with either the WA1FFL (my personal favorite) or the N3ZI VFOs. The WA1FFL offers a nice driver circuit/kit to get the output up to the 8+ volts swing you'll need and he has a bandswitch option that is designed for rigs like the 2-NT, DX-60 etc. I also have an article in the January CQ which shows a bit more and has some pictures of my engineering prototype. Since that article I've made a couple more changes which provide better timing and a 60 Hz notch filter. I've also laid out a PCB that I'm checking out now. maybe I'll make that available too.

Good luck and let the list know how it goes.

73 - Ken Miller, K6CTW

19651. Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 01:33:52 UTC
From: L L bahr
Topic: 19529 Message: 19651

I am about to receive a Drake 2A receiver with no crystal calibrator. I want one in the radio so I plan to build one up pretty much as original Drake. (I don't know where I can buy one and they are overpriced anyway when they show up.) To make a calibrator, I plan to make the box out of PC board material. I have the tube, tube socket, crystal, crystal socket and the ceramic trimmer condenser. That leaves the 4 pin plug. Does anyone know a source for this plug? If not, my plan is to use some number 12 wire if that size is correct and use short pieces as pins mounted on pc board material. Better yet would be if I could find some real pins to use when making up the plug. Anyone know a source for the right size plug pins? (I know you can buy 7 pin plugs for a TR-4 but not 4 pin plugs. I am not sure if the pins would be the same size. If so, I could maybe rob pins out of a 7 pin socket and use them in a home brew plug using PC board material.) Any thoughts? (I do not want to use a solid state crystal calibrator.)
Lee, w0vt

19652. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 01:52:14 UTC
From: L L bahr
Topic: 19529 Message: 19652

I just found out the 7 pin NB plug pins are much smaller in diameter then the 4 pin crystal calibrator pins.
Lee, w0vt

I am about to receive a Drake 2A receiver with no crystal calibrator. I want one in the radio so I plan to build one up pretty much as original Drake. (I don't know where I can buy one and they are overpriced anyway when they show up.) To make a calibrator, I plan to make the box out of PC board material. I have the tube, tube socket, crystal, crystal socket and the ceramic trimmer condenser. That leaves the 4 pin plug. Does anyone know a source for this plug? If not, my plan is to use some number 12 wire if that size is correct and use short pieces as pins mounted on pc board material. Better yet would be if I could find some real pins to use when making up the plug. Anyone know a source for the right size plug pins? (I know you can buy 7 pin plugs for a TR-4 but not 4 pin plugs. I am not sure if the pins would be the same size. If so, I could maybe rob pins out of a 7 pin socket and use them in a home brew plug using PC board material.) Any thoughts? (I do not want to use a solid state crystal calibrator.)
Lee, w0vt

19653. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 01:58:39 UTC
From: Steve Wedge
Topic: 19529 Message: 19653

Pins from an old Octal tube look like they'd be close.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: L L bahr
Sent: Wednesday, March 26, 2014 9:33 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake 2A/B Crystal Calibrator

I am about to receive a Drake 2A receiver with no crystal calibrator. I want one in the radio so I plan to build one up pretty much as original Drake. (I don't know where I can buy one and they are overpriced anyway when they show up.) To make a calibrator, I plan to make the box out of PC board material. I have the tube, tube socket, crystal, crystal socket and the ceramic trimmer condenser. That leaves the 4 pin plug. Does anyone know a source for this plug? If not, my plan is to use some number 12 wire if that size is correct and use short pieces as pins mounted on pc board material. Better yet would be if I could find some real pins to use when making up the plug. Anyone know a source for the right size plug pins? (I know you can buy 7 pin plugs for a TR-4 but not 4 pin plugs. I am not sure if the pins would be the same size. If so, I could maybe rob pins out of a 7 pin socket and use them in a home brew plug using PC board material.) Any thoughts? (I do not want to use a solid state crystal calibrator.)

Lee, w0vt

19654. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 02:05:47 UTC
From: L L bahr
Topic: 19529 Message: 19654

I'll check it out, Steve. Thanks.

Lee, w0vt

Pins from an old Octal tube look like they'd be close.

Steve Wedge, W1ES/4

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To: DrakeRadio@yahoogroups.com
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Lee, w0vt

19655. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 02:22:36 UTC
From: Bill Gaines
Topic: 19529 Message: 19655

I just made several plugs to use between the AC4 and the L4B using 3/32” brass tubing for the pins obtained from Hobby Lobby. I used plastic I machined using a router and drill press to fashion the holders. They work great. Perhaps you can do much the same thing for the 4 pin plug you are looking for.

AD8P

From: L L bahr
Sent: Wednesday, March 26, 2014 10:05 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

I'll check it out, Steve. Thanks.

Lee, w0vt

Pins from an old Octal tube look like they'd be close.

Steve Wedge, W1ES/4

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Lee, w0vt

19656. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 02:29:38 UTC
From: L L bahr
Topic: 19529 Message: 19656

Thanks Bill.
Lee, w0vt

I just made several plugs to use between the AC4 and the L4B using 3/32” brass tubing for the pins obtained from Hobby Lobby. I used plastic I machined using a router and drill press to fashion the holders. They work great. Perhaps you can do much the same thing for the 4 pin plug you are looking for.

AD8P

19657. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 02:50:31 UTC
From: Garey Barrell
Topic: 19529 Message: 19657

Lee -

Donnie at '2bradioparts' made a few calibrators using that method. I think he quit making them,
but they were nice and fit quite well. The copper PC board made for an 'almost original' look.

Steve had it right, the pins are 0.094" or 3/32". Most hobby outlets have brass tubing in that
size for a few bucks. Or if you have some dead octal tubes the pins can be pulled out of the
base without damage, with a little care.

Just print the socket layout on the bottom PC board and solder the pins right to it.

73, Garey - K4OAH
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> calibrator.)
>
> Lee, w0vt
>
>

19658. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 03:00:05 UTC
From: L L bahr
Topic: 19529 Message: 19658

OK, Garey, yep that is what I will have to do. I will stuff the pins into PC board lands etched on the bottom PC board cabinet piece. I did have numerous conversations with Donnie today. I appreciate knowing the pins need to be 3/32 inch. I'll go pick some Hobby Lobby brass up tomorrow.

Here is a bomb shell. I ordered a couple Drake cans from Hayseed Hamfest today and Tom wrote me he had a bomb dropped on him yesterday. One of his suppliers ceased making parts for them. Consequently no more cans for a TR-4C or 2A until he finds another supplier. My cans for these rigs are now back ordered. He hopes to find another supplier soon, but at the moment cannot predict when he can supply cans again.
Lee, w0vt

Lee -

Donnie at '2bradioparts' made a few calibrators using that method. I think he quit making them,
but they were nice and fit quite well. The copper PC board made for an 'almost original' look.

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> calibrator.)
>
> Lee, w0vt
>
>

19659. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 03:19:08 UTC
From: Garey Barrell
Topic: 19529 Message: 19659

Lee -

Cool... See if Donnie has dimensions for that layout. I get 0.312" wide pins, 0.250" narrow pins, and 0.200 between pairs. But the ol eyes and hand tremors make it difficult! :-) If I didn't know better, I'd say 0.30, 0.25 and 0.20!

Not good news from Tom! He's overcome supplier problems in the past, and I'm sure he'll pull it
out again..... Joys of manufacturing!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
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> brass up tomorrow.
> Here is a bomb shell. I ordered a couple Drake cans from Hayseed Hamfest today and Tom wrote
> me he had a bomb dropped on him yesterday. One of his suppliers ceased making parts for
> them. Consequently no more cans for a TR-4C or 2A until he finds another supplier. My cans
> for these rigs are now back ordered. He hopes to find another supplier soon, but at the moment
> cannot predict when he can supply cans again.
> Lee, w0vt
>
> Lee -
>
> Donnie at '2bradioparts' made a few calibrators using that method. I think he quit making them,
> but they were nice and fit quite well. The copper PC board made for an 'almost original' look.
>
> Steve had it right, the pins are 0.094" or 3/32". Most hobby outlets have brass tubing in that
> size for a few bucks. Or if you have some dead octal tubes the pins can be pulled out of the

> base without damage, with a little care.
>
> Just print the socket layout on the bottom PC board and solder the pins right to it.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> L L bahr wrote:
> >
> >
> >
> > I am about to receive a Drake 2A receiver with no crystal calibrator. I want one in the
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> > so I plan to build one up pretty much as original Drake. (I don't know where I can buy
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> > and they are overpriced anyway when they show up.) To make a calibrator, I plan to make
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> > box out of PC board material. I have the tube, tube socket, crystal, crystal socket and
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> > ceramic trimmer condenser. That leaves the 4 pin plug. Does anyone know a source for
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> > pieces as pins mounted on pc board material. Better yet would be if I could find some
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> > know you can buy 7 pin plugs for a TR-4 but not 4 pin plugs. I am not sure if the pins
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> > be the same size. If so, I could maybe rob pins out of a 7 pin socket and use them in a
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> > brew plug using PC board material.) Any thoughts? (I do not want to use a solid state
crystal
> > calibrator.)
> >
> > Lee, w0vt
> >
> >
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>

19660. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 03:25:11 UTC
From: L L bahr
Topic: 19529 Message: 19660

Garey,

T hanks for the dimensions. I don't have the 2A in my possession so I can't measure anything. As soon as it arrives I'll do some close measuring. and in the meantime I can get other things rolling for the project. You are right, real calibrators are priced through the roof. They are going for a little less then what I paid for the radio!
Lee, w0vt

Lee -

Cool... See if Donnie has dimensions for that layout. I get 0.312" wide pins, 0.250" narrow pins, and 0.200 between pairs. But the ol eyes and hand tremors make it difficult! :-) If I didn't know better, I'd say 0.30, 0.25 and 0.20!

Not good news from Tom! He's overcome supplier problems in the past, and I'm sure he'll pull it
out again..... Joys of manufacturing!

73, Garey - K4OAH
Glen Allen, VA

19661. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 09:45:03 UTC
From: Wolfgang (VK3WY)
Topic: 19529 Message: 19661

Hi Lee,

I have the exact 4 pin plugs and sockets, all I need is your mailing address they are free, not even postage is needed.

Cheers Wolf

----- Original Message -----
From: L L bahr
To: DrakeRadio@yahoogroups.com
Sent: Thursday, March 27, 2014 12:33 PM
Subject: [DrakeRadio] Drake 2A/B Crystal Calibrator

I am about to receive a Drake 2A receiver with no crystal calibrator. I want one in the radio so I plan to build one up pretty much as original Drake. (I don't know where I can buy one and they are overpriced anyway when they show up.) To make a calibrator, I plan to make the box out of PC board material. I have the tube, tube socket, crystal, crystal socket and the ceramic trimmer condenser. That leaves the 4 pin plug. Does anyone know a source for this plug? If not, my plan is to use some number 12 wire if that size is correct and use short pieces as pins mounted on pc board material. Better yet would be if I could find some real pins to use when making up the plug. Anyone know a source for the right size plug pins? (I know you can buy 7 pin plugs for a TR-4 but not 4 pin plugs. I am not sure if the pins would be the same size. If so, I could maybe rob pins out of a 7 pin socket and use them in a home brew plug using PC board material.) Any thoughts? (I do not want to use a solid state crystal calibrator.)

Lee, w0vt

19662. Re: Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 14:15:33 UTC
From: Kevin Elliott
Topic: 19529 Message: 19662

I happen to have a 5-pin plug that will work for the calibrator plug. All you need to do is remove the 5th pin which is centered between the other 4 pins. It is a perfect match to the socket and can be soldered just like you would an octagonal plug where you run the wire into the pins and solder it there.

Kevin - KG0MN
kg0mn at kg0mn.com
"Real radios glow in the dark and help with winter heating bills"

19663. Error in AUX7 Manual - RRM7 and RTM7 Module Programming

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-27 21:00:52 UTC
From: Don Buska - The Radio Lab Works
Topic: 19663 Message: 19663

While recently building some diode AUX7 modules for an R7 user an error was discovered in the original Drake manual "AUX7 AUXILIARY PROGRAM BOARD, MODEL 1536". There are different version of this manual. My personal physical copy was an earlier version that did not show the R7 VLF modules. FYI, the programming for the AUX7 modules for the 0.0-1.5MHz ranges (three modules) are different between the TR7 and R7. In later manuals the three R7 VLF range programming lines were added to the bottom of the original table.

It was found that the R7 module for the 0.5-1.0MHz range was not correct. After consulting the schematics it was discovered that the range pins (2-9) should be the same between the TR7 and R7. Only the band selection pins (10-14) are different. This is because there are additional band filters installed in the R7 for these VLF bands. The TR7 VLF has no band filtering. i.e. it is a direct connection to the first mixer!

/The error is for pin 3./ In the manual pin 3 for the R7 module shows that this pin is not cut (no letter C). *However, to match the TR7 range setting this pin should be cut! * For those building their own AUX7 modules for the R7 please note that means no diode would be installed for pin 3. If you don't make this correction the R7 0.5-1.0MHz AUX7 range will not work and would display 99 at the beginning and not properly provide the correct synthesizer divider setting.

My guess is this R7 AUX7 module programming error had not been discovered in the past 30 years due to very few people programming their AUX7 board for the VLF frequencies on a R7. The R7 has these VLF frequencies directly selectable as standard bands on the main band selection knob, vs the TR7 which can not receive the VLF range without the AUX7 and the programmed modules.

BTW, here is the link <http://www.qsl.net/ea4bb/EA4BB/Old_Radios_files/AUX7.pdf> for the manual that contains the error.

73
Don N9OO

--

19664. Re: [DrakeRadio] Error in AUX7 Manual - RRM7 and RTM7 Module Programming

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 00:40:53 UTC
From: Jim Shorney
Topic: 19663 Message: 19664

Don,

I noticed this when I was reverse engineering the code for the PROM on the DR-7. Thanks for the confirmation. Muck like you, I pretty much assumed that it was silly for anyone to waste R-7 AUX-7 slots on VLF when it was available on the band switch and I didn't give it another thought. The only reason I can think of for it would be an R-7 without a DR-7. I suppose it's possible that the Easter Bunny or the Tooth Fairy might have one like that....

73

-Jim
NU0C

On Thu, 27 Mar 2014 16:00:52 -0500, Don Buska - The Radio Lab Works wrote:

>While recently building some diode AUX7 modules for an R7 user an error
>was discovered in the original Drake manual "AUX7 AUXILIARY PROGRAM
>BOARD, MODEL 1536". There are different version of this manual. My
>personal physical copy was an earlier version that did not show the R7
>VLF modules. FYI, the programming for the AUX7 modules for the
>0.0-1.5MHz ranges (three modules) are different between the TR7 and R7.
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>the bottom of the original table.
>
>_It was found that the R7 module for the 0.5-1.0MHz range was not
>correct._ After consulting the schematics it was discovered that the
>range pins (2-9) should be the same between the TR7 and R7. Only the
>band selection pins (10-14) are different. This is because there are
>additional band filters installed in the R7 for these VLF bands. The
>TR7 VLF has no band filtering. i.e. it is a direct connection to the
>first mixer!
>
>/The error is for pin 3./ In the manual pin 3 for the R7 module shows
>that this pin is not cut (no letter C). *However, to match the TR7 range
>setting this pin should be cut! * For those building their own AUX7
>modules for the R7 please note that means no diode would be installed
>for pin 3. If you don't make this correction the R7 0.5-1.0MHz AUX7
>range will not work and would display 99 at the beginning and not
>properly provide the correct synthesizer divider setting.
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>discovered in the past 30 years due to very few people programming their
>AUX7 board for the VLF frequencies on a R7. The R7 has these VLF
>frequencies directly selectable as standard bands on the main band

>selection knob, vs the TR7 which can not receive the VLF range without
>the AUX7 and the programmed modules.
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>BTW, here is the link
><http://www.qsl.net/ea4bb/EA4BB/Old_Radios_files/AUX7.pdf> for the
>manual that contains the error.
>
>73
>Don N9OO
>
>--
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19665. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 01:05:40 UTC
From: Wolfgang (VK3WY)
Topic: 19529 Message: 19665

Hi Group,

I found about 20 plugs and 30 sockets. They're the 5 pin version just remove the middle pin. Your are right Garey they where used mainly in battery valve radios and valve weather balloons in the 60's and 70's. One can still find them here at HAM fest's. I am only to happy to send one (for free) if it's a genuine need for a project.

Wolf

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: "Wolfgang (VK3WY)" <vk3wy@...>
Sent: Friday, March 28, 2014 1:33 AM
Subject: Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

> Hello Wolf -
>
> That is terrific.! This has been a problem for a while.. Are you making
> them, or did you come across a box full somewhere? :-)
>
> I would be very interested in the story. I know this type of connector
> was used for speaker plugs and battery plugs sixty years ago in the US.
> Just speculating, but with your 'outback education program' that we all
> learned about, if perhaps these were battery plugs.? Maybe your
> government, like ours, bought a 200 year supply of plugs for this
> program!?!?!? :-)
>
> Thanks for your kind offer!
>
> Please tell me the 'back-story'!!!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Wolfgang (VK3WY) wrote:
>> □
>>
>> Hi Lee,
>> I have the exact 4 pin plugs and sockets, all I need is your mailing
>> address they are free, not even postage is needed.

>> Cheers Wolf
>>
>> ----- Original Message -----
>> *From:* L L bahr <mailto:pulsarxp@...>
>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>> *Sent:* Thursday, March 27, 2014 12:33 PM
>> *Subject:* [DrakeRadio] Drake 2A/B Crystal Calibrator
>>
>>
>> I am about to receive a Drake 2A receiver with no crystal calibrator.
>> I want one in the
>> radio so I plan to build one up pretty much as original Drake. (I
>> don't know where I can
>> buy one and they are overpriced anyway when they show up.) To make a
>> calibrator, I plan
>> to make the box out of PC board material. I have the tube, tube
>> socket, crystal, crystal
>> socket and the ceramic trimmer condenser. That leaves the 4 pin
>> plug. Does anyone know a
>> source for this plug? If not, my plan is to use some number 12 wire
>> if that size is
>> correct and use short pieces as pins mounted on pc board material.
>> Better yet would be if
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>> Any thoughts? (I
>> do not want to use a solid state crystal calibrator.)
>>
>> Lee, w0vt
>>
>>
>>
>>
>>
>

19666. Re: [DrakeRadio] Drake 2A/B Crystal Calibrator

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 05:01:36 UTC
From: Jim Shorney
Topic: 19529 Message: 19666

They were also common on aftermarket car stereo equipment in the US before the proliferation of BTL outputs. Radio Shack used to carry the wire harness with the plug on the end if you needed to move your 8-track player to another vehicle and needed a new cable...

73

-Jim
NU0C

On Fri, 28 Mar 2014 12:05:40 +1100, Wolfgang \(VK3WY\) wrote:

>Hi Group,
>
>I found about 20 plugs and 30 sockets. They're the 5 pin version just
>remove the middle pin. Your are right Garey they where used mainly in
>battery valve radios and valve weather balloons in the 60's and 70's. One
>can still find them here at HAM fest's. I am only to happy to send one (for
>free) if it's a genuine need for a project.
>
>Wolf
>
>
>----- Original Message -----
>From: "Garey Barrell" <k4oah@...>
>To: "Wolfgang (VK3WY)" <vk3wy@optusnet.com.au>
>Sent: Friday, March 28, 2014 1:33 AM
>Subject: Re: [DrakeRadio] Drake 2A/B Crystal Calibrator
>
>
>> Hello Wolf -
>>
>> That is terrific.! This has been a problem for a while.. Are you making
>> them, or did you come across a box full somewhere? :-)
>>
>> I would be very interested in the story. I know this type of connector
>> was used for speaker plugs and battery plugs sixty years ago in the US.
>> Just speculating, but with your 'outback education program' that we all
>> learned about, if perhaps these were battery plugs.? Maybe your
>> government, like ours, bought a 200 year supply of plugs for this
>> program!?!?!? :-)
>>
>> Thanks for your kind offer!
>>
>> Please tell me the 'back-story'!!!
>>

>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Wolfgang (VK3WY) wrote:
>>> ï»¿
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>>> Hi Lee,
>>> I have the exact 4 pin plugs and sockets, all I need is your mailing
>>> address they are free, not even postage is needed.
>>> Cheers Wolf
>>>
>>> ----- Original Message -----
>>> *From:* L L bahr <mailto:pulsarxp@...>
>>> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
>>> *Sent:* Thursday, March 27, 2014 12:33 PM
>>> *Subject:* [DrakeRadio] Drake 2A/B Crystal Calibrator
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>>> I want one in the
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>>> socket and the ceramic trimmer condenser. That leaves the 4 pin
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>>> correct and use short pieces as pins mounted on pc board material.
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>>> not 4 pin plugs. I
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>>> maybe rob pins out of a 7
>>> pin socket and use them in a home brew plug using PC board material.)
>>> Any thoughts? (I
>>> do not want to use a solid state crystal calibrator.)
>>>
>>> Lee, w0vt
>>>
>>>
>>>

>>>
>>>
>>
>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19667. TR-4CW R-187 SENSITIVITY 1K trimmer potentiometer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 06:29:53 UTC
From: k7mks@...
Topic: 19667 Message: 19667

Mine gave up the ghost. Need to find a replacement source. Hopefully Mouser has a replacement as I need to order some additional misc. parts.

Thanks joe k7mks

19668. Re: [DrakeRadio] DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 09:35:01 UTC
From: Guido Tedeschi
Topic: 19644 Message: 19668

Il 27/03/2014 00:22, Stewart ha scritto:
>
> Hi Guido,
> Thanks for your response. I measure -100V (99.6) at the VFO key jack
> during receive. Of course it goes to 0 when xmtr is keyed. By
> connecting the diode's anode to the VFO KEY it blocks the -100V and
> the resistance drops to about 22 Ohms, across the diode, with key
> down. I need to think about how this helps me. Maybe this 22 Ohms can
> act as a pull-down on the processors analog input pin.
> FYI, the DDSVFO is from the AD7C Blog site.
> 73
> Stew ke4yh

Hi Stew,
I've just checked on my "brand new" 2-NT (bought one month ago and,
shame on me, still not tested...) and I've measured PLUS 90V on VFO KEY.
If you have not inverted the multimeter probes or misread the measure
;-) your 2-NT has been modified (maybe, bringing the KEY input to the
VFO KEY as well) and should be restored to the original configuration.
With +90V, it is very easy to use the VFO KEY to control the MCU of your
DDS, using a diode with cathode connected to VFO KEY and anode connected
to digital pull-upped input of DDS.
73 de Guido, ik2bcp

19669. Re: [DrakeRadio] DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 16:08:31 UTC
From: Stewart
Topic: 19644 Message: 19669

>
> Hi Stew,
> I've just checked on my "brand new" 2-NT (bought one month ago and,
> shame on me, still not tested...) and I've measured PLUS 90V on VFO KEY.
> If you have not inverted the multimeter probes or misread the measure
> ;-) your 2-NT has been modified (maybe, bringing the KEY input to the
> VFO KEY as well) and should be restored to the original configuration.
> With +90V, it is very easy to use the VFO KEY to control the MCU of
> your DDS, using a diode with cathode connected to VFO KEY and anode
> connected to digital pull-upped input of DDS.
> 73 de Guido, ik2bcp
>
> __.

Thank you Guido,
My 2NT is new to me also. I haven't had the covers off yet. It definitely has -100 V on the center pin of the VFO KEY Jack. manually shorting the jack turns the oscillator on but doesn't key the transmitter. The KEY jack on the front panel has -118V on it. I use a Navy Flame Proof key with it and the contacts are covered.
I had the transmitter on the air and it appears to work normally at 50 Watts out. Made several contacts including a VK4! on twenty meters.
I guess my next step is to pull the covers off and start the refurbishing project.
73
Stew ke4yh

19670. Re: [DrakeRadio] TR-4CW R-187 SENSITIVITY 1K trimmer potentiometer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 16:24:13 UTC
From: Garey Barrell
Topic: 19667 Message: 19670

Joe -

See page 873 in Mouser on-line catalog. Piher or Bourns have drop-in replacements.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k7mks@... wrote:
>
>
> Mine gave up the ghost. Need to find a replacement source. Hopefully Mouser has a
> replacement as I need to order some additional misc. parts.
>
> Thanks joe k7mks
>

19671. Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 21:08:02 UTC
From: <w5rkl@...>
Topic: 19644 Message: 19671

The correct voltage polarity on the VFO KEY socket is "Positive" not "negative". I think Stew must be connecting the meter leads incorrectly to the VFO KEY socket. If Stew's volt meter is a digital volt meter, connect the "RED" lead to the center conductor on the VFO KEY socket and the meter's "BLACK" lead to the chassis, the meter should display a "positive" voltage (no minus sign on the digital meter's display).

Stew have you checked your 2NT wiring from the cathode of V1A (pin 7) to the center conductor of the VFO KEY socket? If not then I recommend you do that using an ohm meter (all power removed/turned OFF and main power plug pulled from the wall outlet). You should see zero ohms from pin 7 of V1A and the center conductor of the VFO KEY socket.

The VFO KEY socket is used to turn the VFO "ON" so the operator can "Spot", hear the VFO signal in the receiver so the VFO is on frequency. Heathkit does the same thing with their VF-1 and HG-10 by grounding the rear panel "VFO KEY" socket, grounds the oscillator, turning it ON. Remove the ground and the oscillator turns OFF.. I use a relay to control the VFO KEY socket in my HG-10 VFO with my DX-40. The VFO KEY relay I used is part of my T/R switch (3PDT 120VAC) relay. The 2NT has a built in T/R relay so you would have to come up with a different circuit to shift the DDS VFO up during transmit.

Stew, have you considered that the DDS VFO output signal level may not be sufficient to drive V1A, the driver, and final amplifier? Quite often the DDS VFO's output signal level is around 200mv which is not enough to drive the buffer stage, V1A to a level the driver and final amplifier can use. I could be wrong but I don't recall seeing this discussed in the thread.

73
Mike W5RKL

19672. Re: [DrakeRadio] Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 23:16:52 UTC
From: Paddy Ryan
Topic: 19644 Message: 19672

Yeah, this is right!You might need a buffer amp to raise the DDS level to drive the tubes..on the 75A-4 the PTO osc level to the mixer is 3 times greater than the DDS VFO output as seen on the scope..

73 de Pat/EI7CN

From: w5rkl@...
Sent: Friday, March 28, 2014 9:08 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: DDS VFO to 2NT

The correct voltage polarity on the VFO KEY socket is "Positive" not "negative". I think Stew must be connecting the meter leads incorrectly to the VFO KEY socket. If Stew's volt meter is a digital volt meter, connect the "RED" lead to the center conductor on the VFO KEY socket and the meter's "BLACK" lead to the chassis, the meter should display a "positive" voltage (no minus sign on the digital meter's display).

Stew have you checked your 2NT wiring from the cathode of V1A (pin 7) to the center conductor of the VFO KEY socket? If not then I recommend you do that using an ohm meter (all power removed/turned OFF and main power plug pulled from the wall outlet). You should see zero ohms from pin 7 of V1A and the center conductor of the VFO KEY socket.

The VFO KEY socket is used to turn the VFO "ON" so the operator can "Spot", hear the VFO signal in the receiver so the VFO is on frequency. Heathkit does the same thing with their VF-1 and HG-10 by grounding the rear panel "VFO KEY" socket, grounds the oscillator, turning it ON. Remove the ground and the oscillator turns OFF.. I use a relay to control the VFO KEY socket in my HG-10 VFO with my DX-40. The VFO KEY relay I used is part of my T/R switch (3PDT 120VAC) relay. The 2NT has a built in T/R relay so you would have to come up with a different circuit to shift the DDS VFO up during transmit.

Stew, have you considered that the DDS VFO output signal level may not be sufficient to drive V1A, the driver, and final amplifier? Quite often the DDS VFO's output signal level is around 200mv which is not enough to drive the buffer stage, V1A to a level the driver and final amplifier can use. I could be wrong but I don't recall seeing this discussed in the thread.

73
Mike W5RKL

19673. Re: [DrakeRadio] Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-28 23:19:37 UTC
From: Stewart
Topic: 19644 Message: 19673

On 3/28/2014 5:08 PM, w5rkl@... wrote:
>
> The correct voltage polarity on the VFO KEY socket is "Positive" not
> "negative". I think Stew must be connecting the meter leads
> incorrectly to the VFO KEY socket. If Stew's volt meter is a digital
> volt meter, connect the "RED" lead to the center conductor on the VFO
> KEY socket and the meter's "BLACK" lead to the chassis, the meter
> should display a "positive" voltage (no minus sign on the digital
> meter's display).
>
> Stew have you checked your 2NT wiring from the cathode of V1A (pin 7)
> to the center conductor of the VFO KEY socket? If not then I recommend
> you do that using an ohm meter (all power removed/turned OFF and main
> power plug pulled from the wall outlet). You should see zero ohms from
> pin 7 of V1A and the center conductor of the VFO KEY socket.
>
> The VFO KEY socket is used to turn the VFO "ON" so the operator can
> "Spot", hear the VFO signal in the receiver so the VFO is on
> frequency. Heathkit does the same thing with their VF-1 and HG-10 by
> grounding the rear panel "VFO KEY" socket, grounds the oscillator,
> turning it ON. Remove the ground and the oscillator turns OFF.. I use
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> The VFO KEY relay I used is part of my T/R switch (3PDT 120VAC) relay.
> The 2NT has a built in T/R relay so you would have to come up with a
> different circuit to shift the DDS VFO up during transmit.
>
> Stew, have you considered that the DDS VFO output signal level may not
> be sufficient to drive V1A, the driver, and final amplifier? Quite
> often the DDS VFO's output signal level is around 200mv which is not
> enough to drive the buffer stage, V1A to a level the driver and final
> amplifier can use. I could be wrong but I don't recall seeing this
> discussed in the thread.
>
> 73
> Mike W5RKL
>
> __
Thanks for your comments Mike.

I have been using vom's and vtvm's, both analog and digital, for over sixty years but I do have my senior moments. Your email got me wondering what else could cause my apparent problem. Then the light bulb went on! I pulled the patch cord I was using and sure enough, the center pin and shield are reversed from one end to the other. (I don't know why) Anyway the problem is resolved.

The VFO outputs the operating freq until a pin on the controller is switched low. When that happens, the frequency shifts a programed amount. It's easy enough to use a manual switch to do this during receive but I want to make the process automatic.

The output of the DDS VFO I'm using has 1V PP open and .5V pp across a fifty Ohm load. I plan on using the Hagerty Buffer Amp to drive the 2NT. That should give me ample drive.

I want to thank everyone on the list for the help and I'll be sure to report any solution when I find it.

73,
Stew ke4yh
Dunedin, FL

19674. Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-29 15:43:07 UTC
From: Ken Miller K6CTW
Topic: 19644 Message: 19674

As for the level. The good news is that the 2-NT does not require a lot of drive. The driver from WA1FFL is an excellent choice. I'm getting about 10 V p-t-p into my DX-60. That should be more than enough.

Also. I had issues with RF on my original DDS VFO and needed to put shielding in the form of ferrite beads on the VFO's input leads.

Which DDS VFO are you using?

Good luck and let us know. 73 - ken K6CTW

19675. Re: [DrakeRadio] Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-29 20:44:33 UTC
From: Stewart
Topic: 19644 Message: 19675

On 3/29/2014 11:43 AM, Ken Miller K6CTW wrote:
>
> As for the level. The good news is that the 2-NT does not require a
> lot of drive. The driver from WA1FFL is an excellent choice. I'm
> getting about 10 V p-t-p into my DX-60. That should be more than enough.
>
> Also. I had issues with RF on my original DDS VFO and needed to put
> shielding in the form of ferrite beads on the VFO's input leads.
>
> Which DDS VFO are you using?
>
> Good luck and let us know. 73 - ken K6CTW
>
> __
Hi Ken,
I'll keep the RF issue in mind, Thanks.
I'm using the Arduino Nano and AD9850 DDS. The software sketch was
written by AD7C. Works FB on the breadboard. Wave looks good on the
scope and the calibration is real close on the freq counter. Now I need
to put together a chassis.
73,
Stew ke4yh

19676. TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 02:24:55 UTC
From: Steve VK2SJA
Topic: 19529 Message: 19676

Hi all,

As part of my ongoing TR-4C restoration I have completely re-furbished the PTO. Trouble is that because this TR-4C is the *only* Drake radio I have, I have nothing to compare it against.

So I know my re-furbished PTO is much better than before I started. But I have no idea if it is as good as it can be.

Now the "Drake Mods" guide (which Garey cautions against taking as pure gospel. So I don't). Says that you should be able to "Fast Spin" a properly working PTO. But by how much?

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So the question to those that have a similar PTO (they are all similar but this is the one with the dual dials from a TR-4C).

Is this good, bad or average?

73, Steve.

19677. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 02:39:31 UTC
From: L L bahr
Topic: 19529 Message: 19677

I don't know what to say about "spin travel", but I can comment on how not to abuse these plastic gears. A long time ago I was using a TR-4 with brass gears. I had a habit of "spinning" the dial from one end of the band to another, which was OK and did not hurt anything. Then Drake came out with the C-line equipment and I purchased a new T4XC and a R4X C. I then started "spinning" the dial on my R4XC from end to end as I did with the older radio with brass gears. As I would spin the dial I would "bang" the gears on the end stop. It took three brand new PTOs to realize I was warping the plastic gears and causing them to bind by "banging" the gears on their end stops. As soon as I stopped doing this, I had no more problems with the plastic gears binding. So be cautious of doing what I initially had done to my Drake C-line gear. Spinning the dials is OK but don't "bang them on their end stops. As for amount of travel, my plastic gears never spin or spun as easily as the PTOs with brass gears. It's just a nature of the beast. One last thing, NEVER lubricate the plastic gearing as it is "self lubricating" and lubrication will "swell" the gears and cause permanent binding to occur.
Lee, w0vt

Hi all,

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So the question to those that have a similar PTO (they are all similar but this is the one with the dual dials from a TR-4C).

Is this good, bad or average?

73, Steve.

19678. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 02:51:59 UTC
From: vacuuminded2@...
Topic: 19529 Message: 19678

The tuning knob is not weighted, so I would not place much concern over how far the tuning "spins" due to the flywheel effect.
If it feels velvety smooth (not gummy) and can be easily tuned with a light touch of your fingertip, I'd say your PTO is mechanically very healthy and happy.

My .02

Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Mar 29, 2014, at 9:24 PM, "Steve VK2SJA" <vk2sja@...> wrote:

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> PTO. Trouble is that because this TR-4C is the *only* Drake radio I have,
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> Is this good, bad or average?
>
> 73, Steve.
>
>

19679. Re: [DrakeRadio] Re: DDS VFO to 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 03:12:27 UTC
From: <k6ctw@...>
Topic: 19644 Message: 19679

Excellent, especially since you can program your band offsets etc. Definitely watch the RF both coming in from your transmitter but also the RF from the Arduino. I'd shield all the leads with beads and make sure the case was surrounding the units.

For cases, I've used the TenTec ones with very good success. Might want to look there for one.

Good luck! 73 - ken

19680. Restored R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 03:30:30 UTC
From: <k6ctw@...>
Topic: 19680 Message: 19680

All - I've described the R-4A I got on eBay before. Well, after putting in a few new resistors that had gone out of tolerance, all the electrolytics (thanks Hayseed Hamfest) and a number of other caps and adding 2 tubes that were out, I got the rig running pretty well. I added in the crystals for the 160 meter band and also one for 28.0-28.5 MHz.

Today, I took it to a friends workbench, where he has a complete set of HP, RF test equipment, and did a full alignment on the rig. Boy is this receiver hot! I'm very impressed. The PTO is also super linear. Drift over an hour was negligible on the instruments (i.e. less than 20 Hz) and not noticable by ear. If we weren't having continuing aftershocks (his shack is about 2 mi from the epicenter of the Brea/La Habra quakes) I was planning on doing an MDS test and sweep the various bandwidth settings to get the filter characteristics. Also wanted to do the BDR testing just to see at 5 and 2 KHz. Maybe next time.

By the way, this is a 13 tube unit, 2xxx serial number. All in all another superb performer from the folks at Drake!

73 - ken

19681. Can-cap shortage at Hayseed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 04:03:43 UTC
From: Bernie
Topic: 19681 Message: 19681

Folks,
In a conversation with Tom at Hayseed Hamfest concerning his loss of a supplier....he advised me he still has plenty of multi-section can capacitors in stock for the three "H" manufactured radios...Hallicrafters, Hammarlund and Heathkit. It is only the can capacitors for the Drakes that he is out of TEMPORARILY due to a supplier shutting down. He said "Be patient" because it may be a day or two, a week perhaps, or even a month, but he WILL find another supllier of the can. Just wanted to pass this along to the Drake group here....from Tom at Hayseed Hamfest. Thanks

Bernie in ND
WDØGMD

19682. Re: Restored R-4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 13:14:11 UTC
From: <teamkarst@...>
Topic: 19680 Message: 19682

20Hz is quite great! I see more like 200Hz drift from 5 minutes to 1 hour. MDS on mine close to .1uV, even on 10 meters. It's also interesting to measure RF to get S9 on the meter.

19683. Need more than coffee to wake up this AM? L-4B on ePay

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 13:26:36 UTC
From: vacuuminded2@...
Topic: 19683 Message: 19683

Who wants to buy my fully tested and working L-4B for half of what this guy wants??

http://www.ebay.com/itm/251489732915?redirect=mobile

Sent from my outdated iPhone wireless thingy

19684. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 14:28:29 UTC
From: Garey Barrell
Topic: 19529 Message: 19684

Um, who cares?? :-) That's what the 'spinner' button is for, you put your finger in the button
and scan the band!

This is kinda like 'how many digits does your display have?'.... How many mean anything??

As long as the frequency changes smoothly, without jumps, and stops when you stop turning, it's
great!

(I'm just old and crotchety!)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
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> 73, Steve.
>

>

19685. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 15:55:21 UTC
From: barcand@...
Topic: 19529 Message: 19685

I'm with you there, Garey. In fact...they can have all the whiz-bang computer controlled SDR's and Flex transceivers...I just picked up an R-390-A in mint condition. Great physical workout getting it up to the 2nd floor, 27 tubes to keep the shack warm in winter...and 17 knobs I can twist & turn for hours on end. It doesn't get much better than that at our age!! Thanks, Garey for all you do.

Bernie in ND
WD0GMD

On Sun, March 30, 2014 9:28 am, Garey Barrell wrote:
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>
>

19686. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 16:06:54 UTC
From: Steve Wedge
Topic: 19529 Message: 19686

I must be missing something here, as I've never had any piece of Drake gear where I could freewheel the main tuning by 50 kc. The C-Line is stiffer than the older ones and I can't imagine getting any travel out of those! If you loosen up the pre-C's enough to do this, the knob is going to have a lot of axial play in it. These are pre-loaded ball bearings and not roller bearings we're talking about here...

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: barcand@nccray.com
Sent: Sunday, March 30, 2014 11:55 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

I'm with you there, Garey. In fact...they can have all the whiz-bang computer controlled SDR's and Flex transceivers...I just picked up an R-390-A in mint condition. Great physical workout getting it up to the 2nd floor, 27 tubes to keep the shack warm in winter...and 17 knobs I can twist & turn for hours on end. It doesn't get much better than that at our age!! Thanks, Garey for all you do.

Bernie in ND
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On Sun, March 30, 2014 9:28 am, Garey Barrell wrote:
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>> 73, Steve.
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19687. Re: [DrakeRadio] : Drake cabinetry

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 16:28:53 UTC
From: Chgypsy@...
Topic: 19687 Message: 19687

Hi all,
FWIW the ex Drake folks that purchased all the stuff for metal work are up an viable. Whether they duplicate is a question I have not looked into. http://dynamicmetalshop.com/ They are located in Middletown, OH at the west end of the airport.
I do not have any monetary involvement. Carl WD8NHK

, k6ctw@... writes:

For cases, I've used the TenTec ones with very good success. Might want to look there for one.
Good luck! 73 - ken

19688. Re: [DrakeRadio] : Drake cabinetry

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 16:36:57 UTC
From: Evan Rolek
Topic: 19687 Message: 19688

They do a variety of machine and fabrication work but they do not have specs and such for Drake cabinets, paint, etc. etc. Good guys though!

-----Original Message-----
From: Chgypsy <Chgypsy@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 30, 2014 12:28 pm
Subject: Re: [DrakeRadio] : Drake cabinetry

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They are located in Middletown, OH at the west end of the airport.
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Good luck! 73 - ken

19689. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 17:07:47 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 19689

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

19690. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 17:58:31 UTC
From: Barry
Topic: 19529 Message: 19690

Instead of a "how far will it go with a good spin", I would think the spec should be more on the order of how much torque is required to move the dial (which would be pretty difficult to measure on a properly-adjusted Drake PTO).

That said, the "changes smoothly, without jumps, and stops when you stop turning" statement below should be all that's important.

And that's my "I don't own any 4-Line equipment but like to comment anyway" $0.02. :)

Regards,
Barry - N4BUQ

----- Original Message -----
> From: "Garey Barrell" <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Sunday, March 30, 2014 9:28:29 AM
> Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?
>
> Um, who cares?? :-) That's what the 'spinner' button is for, you
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> ------------------------------------
>
> Yahoo Groups Links
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19691. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 17:59:42 UTC
From: Barry
Topic: 19529 Message: 19691

Betcha the KC knob on that R-390A doesn't go very far on a good starter spin, does it! :)

Regards,
Barry - N4BUQ

----- Original Message -----
> From: barcand@...
> To: DrakeRadio@yahoogroups.com
> Sent: Sunday, March 30, 2014 10:55:21 AM
> Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?
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> > you stop turning, it's
> > great!
> >
> > (I'm just old and crotchety!)
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >

> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Steve VK2SJA wrote:
> >> Hi all,
> >>
> >> As part of my ongoing TR-4C restoration I have completely
> >> re-furbished
> >> the
> >> PTO. Trouble is that because this TR-4C is the *only* Drake radio
> >> I
> >> have,
> >> I have nothing to compare it against.
> >>
> >> So I know my re-furbished PTO is much better than before I
> >> started. But
> >> I
> >> have no idea if it is as good as it can be.
> >>
> >> Now the "Drake Mods" guide (which Garey cautions against taking as
> >> pure
> >> gospel. So I don't). Says that you should be able to "Fast Spin" a
> >> properly working PTO. But by how much?
> >>
> >> So I have devised this rather crude and simple test. If I align
> >> the PTO
> >> at
> >> the zero KHz mark with the dial marker. And then place my finger
> >> at the
> >> top of the tuning knob in-line with the dial marker. Then flick my
> >> finger
> >> downwards in a clockwize direction with as much force as I care to
> >> muster
> >> without getting silly. My PTO will spin/traverse about 50 KHz.
> >>
> >> So the question to those that have a similar PTO (they are all
> >> similar
> >> but
> >> this is the one with the dual dials from a TR-4C).
> >>
> >> Is this good, bad or average?
> >>
> >> 73, Steve.
> >>
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> Yahoo Groups Links
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19692. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 18:38:21 UTC
From: Chgypsy@...
Topic: 19529 Message: 19692

Having used them for three years I'll "Guarantee" that statement. Carl
WD8NHK

, n4buq@... writes:

Betcha the KC knob on that R-390A doesn't go very far on a good starter
spin, does it! :)
Barry - N4BUQ

19693. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 18:55:48 UTC
From: Richard Knoppow
Topic: 19529 Message: 19693

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 30, 2014 9:06 AM
Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

I must be missing something here, as I've never had any
piece of Drake gear where I could freewheel the main tuning
by 50 kc. The C-Line is stiffer than the older ones and I
can't imagine getting any travel out of those! If you
loosen up the pre-C's enough to do this, the knob is going
to have a lot of axial play in it. These are pre-loaded
ball bearings and not roller bearings we're talking about
here...

73,

Steve Wedge, W1ES/4

I just started reading this thread and can't figure it
out either unless its really about some other piece of
equipment. The "drag" on the VFO of my TR-4, T4XB, R4B, are
all dependant on the adjustment of the bearing at the back.
When set to just eliminate mechanical wobble there is not
much drag but also the dial does not spin. I don't think
the dials of any receiver that is without a flywheel will
spin. Certainly, the dial on my R-388 does not and has a
drag adjustment under the knob. If you want spin try an
SP-600-JX with a clean gear box, next best is an RCA AR-88.
A lot of receivers had flywheels, even some of the cheaper
Hallicrafters sets. I don't think it adds much other than it
feels nice.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19694. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 19:18:25 UTC
From: Bernie
Topic: 19529 Message: 19694

Not at all!!
I did trade out the tuning knob on my drake 2-B for a large Dakaware weighted knob...love the way THAT tunes.

Bernie in ND
WDØGMD

----- Original Message -----
From: Barry
To: DrakeRadio@yahoogroups.com
Sent: Sunday, March 30, 2014 12:59 PM
Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Betcha the KC knob on that R-390A doesn't go very far on a good starter spin, does it! :)

Regards,
Barry - N4BUQ

----- Original Message -----
> From: barcand@...
> To: DrakeRadio@yahoogroups.com
> Sent: Sunday, March 30, 2014 10:55:21 AM
> Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?
>
> I'm with you there, Garey. In fact...they can have all the whiz-bang
> computer controlled SDR's and Flex transceivers...I just picked up an
> R-390-A in mint condition. Great physical workout getting it up to
> the
> 2nd floor, 27 tubes to keep the shack warm in winter...and 17 knobs I
> can
> twist & turn for hours on end. It doesn't get much better than that
> at
> our age!! Thanks, Garey for all you do.
>
> Bernie in ND
> WD0GMD
>
>
> On Sun, March 30, 2014 9:28 am, Garey Barrell wrote:
> > Um, who cares?? :-) That's what the 'spinner' button is for, you
> > put
> > your finger in the button
> > and scan the band!
> >
> > This is kinda like 'how many digits does your display have?'....
> > How many

> > mean anything??
> >
> > As long as the frequency changes smoothly, without jumps, and stops
> > when
> > you stop turning, it's
> > great!
> >
> > (I'm just old and crotchety!)
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Steve VK2SJA wrote:
> >> Hi all,
> >>
> >> As part of my ongoing TR-4C restoration I have completely
> >> re-furbished
> >> the
> >> PTO. Trouble is that because this TR-4C is the *only* Drake radio
> >> I
> >> have,
> >> I have nothing to compare it against.
> >>
> >> So I know my re-furbished PTO is much better than before I
> >> started. But
> >> I
> >> have no idea if it is as good as it can be.
> >>
> >> Now the "Drake Mods" guide (which Garey cautions against taking as
> >> pure
> >> gospel. So I don't). Says that you should be able to "Fast Spin" a
> >> properly working PTO. But by how much?
> >>
> >> So I have devised this rather crude and simple test. If I align
> >> the PTO
> >> at
> >> the zero KHz mark with the dial marker. And then place my finger
> >> at the
> >> top of the tuning knob in-line with the dial marker. Then flick my
> >> finger
> >> downwards in a clockwize direction with as much force as I care to
> >> muster
> >> without getting silly. My PTO will spin/traverse about 50 KHz.
> >>
> >> So the question to those that have a similar PTO (they are all
> >> similar

> >> but
> >> this is the one with the dual dials from a TR-4C).
> >>
> >> Is this good, bad or average?
> >>
> >> 73, Steve.
> >>
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> Yahoo Groups Links
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19695. Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 21:18:21 UTC
From: vacuuminded2@...
Topic: 19529 Message: 19695

I still think the king of flywheel tuning is the National NC-300/303. After a cleaning and lube job, one swift spin will send the dial pointer from one end stop to the other. The single most silky smooth tuning knob I have run across yet.

C

Sent from my outdated iPhone wireless thingy

On Mar 30, 2014, at 1:55 PM, "Richard Knoppow" <1oldlens1@...> wrote:

>
> ----- Original Message -----
> From: "Steve Wedge" <w1es1982@...m>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Sunday, March 30, 2014 9:06 AM
> Subject: Re: [DrakeRadio] TR4 PTO "Fast Spin" how far?
>
> I must be missing something here, as I've never had any
> piece of Drake gear where I could freewheel the main tuning
> by 50 kc. The C-Line is stiffer than the older ones and I
> can't imagine getting any travel out of those! If you
> loosen up the pre-C's enough to do this, the knob is going
> to have a lot of axial play in it. These are pre-loaded
> ball bearings and not roller bearings we're talking about
> here...
>
> 73,
>
> Steve Wedge, W1ES/4
>
> I just started reading this thread and can't figure it
> out either unless its really about some other piece of
> equipment. The "drag" on the VFO of my TR-4, T4XB, R4B, are
> all dependant on the adjustment of the bearing at the back.
> When set to just eliminate mechanical wobble there is not
> much drag but also the dial does not spin. I don't think
> the dials of any receiver that is without a flywheel will
> spin. Certainly, the dial on my R-388 does not and has a
> drag adjustment under the knob. If you want spin try an
> SP-600-JX with a clean gear box, next best is an RCA AR-88.
> A lot of receivers had flywheels, even some of the cheaper
> Hallicrafters sets. I don't think it adds much other than it
> feels nice.
>
> --
> Richard Knoppow

> Los Angeles
> WB6KBL
> dickburk@...
>
>

19696. Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 22:02:07 UTC
From: David Stinson
Topic: 19696 Message: 19696

I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
and politely directed his attention to the working, tested L-4
listed
for less than half the price and with free shipping.
I also politely reminded him that ham stuff and tube-audio stuff
were two different markets and price very differently.

He responded...

I THINK YOU SHOULD KEEP YOUR F***IN COMMENTS
TO YOURSELF, AND SHUT THE F*** UP!!

Someday, I will learn to mind my own business:

19697. RE: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 22:14:35 UTC
From: keith evans
Topic: 19696 Message: 19697

He obviously didn't like the Truth..

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of David Stinson
Sent: 30 March 2014 23:02
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Audiophool Potty-Mouth

I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
and politely directed his attention to the working, tested L-4
listed
for less than half the price and with free shipping.
I also politely reminded him that ham stuff and tube-audio stuff
were two different markets and price very differently.

He responded...

I THINK YOU SHOULD KEEP YOUR F***IN COMMENTS
TO YOURSELF, AND SHUT THE F*** UP!!

Someday, I will learn to mind my own business:

19698. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 22:18:08 UTC
From: Lee Hiers
Topic: 19696 Message: 19698

On Sun, Mar 30, 2014 at 6:02 PM, David Stinson <arc5@...> wrote:

> I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
> and politely directed his attention to the working, tested L-4
> listed
>
Someday, I will learn to mind my own business:
>
I'm sure he's fishing to find someone to pay him more than most of us would perceive to be it's worth, but in his defense, the first sentence in the listing says:

FOR THOSE WHO THINK THAT THIS IS THE SELLING PRICE, IT IS NOT THE SELLING PRICE. THE AD HAS "MAKE OFFER" TO ALLOW EBAYER'S TO MAKE A REASONABLE OFFER.

FWIW...and that doesn't mean he isn't a jerk, obviously...

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

19699. Re: Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 22:34:46 UTC
From: <radiomanl@...>
Topic: 19696 Message: 19699

the ebay sellers think their items are made of platinum anyway . I dropped Epay long ago .
kd5pnt

19700. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:12:14 UTC
From: M K
Topic: 19696 Message: 19700

I suspect that he is doing this because he does not want to set a reserve price(eBay charges extra for this).

On Sun, Mar 30, 2014 at 6:18 PM, Lee Hiers <lee.hiers@...> wrote:

>
>
> On Sun, Mar 30, 2014 at 6:02 PM, David Stinson <arc5@...> wrote:
>
>> I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
>> and politely directed his attention to the working, tested L-4
>> listed
>>
> Someday, I will learn to mind my own business:
>>
> I'm sure he's fishing to find someone to pay him more than most of us
> would perceive to be it's worth, but in his defense, the first sentence in
> the listing says:
>
> *FOR THOSE WHO THINK THAT THIS IS THE SELLING PRICE, IT IS NOT THE SELLING
> PRICE. THE AD HAS "MAKE OFFER" TO ALLOW EBAYER'S TO MAKE A REASONABLE
> OFFER.*
>
> FWIW...and that doesn't mean he isn't a jerk, obviously...
>
> 73 de Lee
> --
> Lee Hiers, AA4GA
> www.aa4ga.com
>
> Submit your QRP DXCC totals to www.qrpdx.com!
>
>
>

19701. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-29 23:14:15 UTC
From: Joe - W7RKN
Topic: 19696 Message: 19701

Hi Dave....

Send me the auction numbers referred to..I will send a note as well.....and
if he relies to me that way, I forward his replies on to eBay, and I
guarantee, he will be history...they don't like those kind of responses!

Joe - W7RKN

----- Original Message -----
From: "David Stinson" <arc5@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 30, 2014 3:02 PM
Subject: [DrakeRadio] Audiophool Potty-Mouth

>I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
> and politely directed his attention to the working, tested L-4
> listed
> for less than half the price and with free shipping.
> I also politely reminded him that ham stuff and tube-audio stuff
> were two different markets and price very differently.
>
> He responded...
>
> I THINK YOU SHOULD KEEP YOUR F***IN COMMENTS
> TO YOURSELF, AND SHUT THE F*** UP!!
>
> Someday, I will learn to mind my own business:
>
>
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>
> Yahoo Groups Links
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19702. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:35:26 UTC
From: Jim Shorney
Topic: 19696 Message: 19702

You never know, there might be somone out there with the excess cash and shortage of sense to buy it at that price. Sometimes capitalism required a bit of audacity. I've seen many an auction go stupid high in price, and I just have chuckle that there were at least two people bidding at that level.

Still, his mother should have taught him better manners.

73

-Jim
NU0C

On Sun, 30 Mar 2014 19:12:14 -0400, M K wrote:

>I suspect that he is doing this because he does not want to set a reserve
>price(eBay charges extra for this).
>
>
>On Sun, Mar 30, 2014 at 6:18 PM, Lee Hiers <lee.hiers@...> wrote:
>
>>
>>
>> On Sun, Mar 30, 2014 at 6:02 PM, David Stinson <arc5@...> wrote:
>>
>>> I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
>>> and politely directed his attention to the working, tested L-4
>>> listed
>>>
>> Someday, I will learn to mind my own business:
>>>
>> I'm sure he's fishing to find someone to pay him more than most of us
>> would perceive to be it's worth, but in his defense, the first sentence in
>> the listing says:
>>
>> *FOR THOSE WHO THINK THAT THIS IS THE SELLING PRICE, IT IS NOT THE SELLING
>> PRICE. THE AD HAS "MAKE OFFER" TO ALLOW EBAYER'S TO MAKE A REASONABLE
>> OFFER.*
>>
>> FWIW...and that doesn't mean he isn't a jerk, obviously...
>>
>> 73 de Lee
>> --
>> Lee Hiers, AA4GA
>> www.aa4ga.com
>>

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

19703. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:39:39 UTC
From: David Stinson
Topic: 19696 Message: 19703

I got a follow-up.
The man just lost his mother today.
A foul mood may be .... understandable.

----- Original Message -----
From: "Joe - W7RKN" <w7rkn.7@...>
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

> Hi Dave....
>
> Send me the auction numbers referred to..I will send a note as
> well.....and
> if he relies to me that way, I forward his replies on to eBay,
> and I
> guarantee, he will be history...they don't like those kind of
> responses!
>
> Joe - W7RKN
>
> ----- Original Message -----
> From: "David Stinson" <arc5@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Sunday, March 30, 2014 3:02 PM
> Subject: [DrakeRadio] Audiophool Potty-Mouth
>
>
>>I wrote the fellow with the $3500 "Buy it now" Drake L-4 on
>>Ebay
>> and politely directed his attention to the working, tested L-4
>> listed
>> for less than half the price and with free shipping.
>> I also politely reminded him that ham stuff and tube-audio
>> stuff
>> were two different markets and price very differently.
>>
>> He responded...
>>
>> I THINK YOU SHOULD KEEP YOUR F***IN COMMENTS
>> TO YOURSELF, AND SHUT THE F*** UP!!
>>
>> Someday, I will learn to mind my own business:
>>
>>
>>
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>> Yahoo Groups Links
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19704. Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:40:16 UTC
From: <k6ctw@...>
Topic: 19704 Message: 19704

A general question for the group. I have a 4-NB in my R-4C but on a vintage net, they mentioned that these units are unobtanium. I've done a little checking and that appears that he is correct. So, I wrote to Drake and asked if they could provide information on the coils and they said they didn't have it anymore. Thus, what I plan on doing is taking measurements from the ones on my 4-NB. I'm currently in the process of re-drawing the schematic in to Express PCB package and may follow that with a layout once I get all the appropriate information. I'll let the list know what I find out about making a direct replacement and the layout and parts costs if that can be determined. An interesting experiment eh?

Now a question for all of you, Does anyone have any idea of what original units go for now on eBay? That will give me an idea of wether this is a worthwhile exercise of just a waste of time. Thanks in advance for any advice/comments/etc.

73 - ken

PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19705. Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:51:45 UTC
From: WB6TNF
Topic: 19704 Message: 19705

Completed listings on Ebay show the 34-PNB sold for $245.00
The 5-NB as high as $219.99

On Sunday, March 30, 2014 4:40 PM, "k6ctw@..." <k6ctw@...> wrote:

A general question for the group. I have a 4-NB in my R-4C but on a vintage net, they mentioned that these units are unobtanium. I've done a little checking and that appears that he is correct. So, I wrote to Drake and asked if they could provide information on the coils and they said they didn't have it anymore. Thus, what I plan on doing is taking measurements from the ones on my 4-NB. I'm currently in the process of re-drawing the schematic in to Express PCB package and may follow that with a layout once I get all the appropriate information. I'll let the list know what I find out about making a direct replacement and the layout and parts costs if that can be determined. An interesting experiment eh?

Now a question for all of you, Does anyone have any idea of what original units go for now on eBay? That will give me an idea of wether this is a worthwhile
exercise of just a waste of time. Thanks in advance for any advice/comments/etc.

73 - ken

PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19706. Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-30 23:53:23 UTC
From: Jim Larsen - AL7FS
Topic: 19704 Message: 19706

I would love to build up a 34-PNB if the info becomes available. Thank
you for your efforts.

Jim Larsen, AL7FS
Anchorage Alaska

On 3/30/2014 3:40 PM, k6ctw@... wrote:
units are unobtanium. I've done a little checking and that appears that
he is correct. So, I wrote to
> Drake and asked if they could provide information on the coils and
> they said they didn't have it anymore. Thus, what I plan on doing is
> taking measurements from the ones on my 4-NB. I'm currently in the
> process of re-drawing the schematic in to Express PCB package and may
> follow that with a layout once I get all the appropriate information.
> n
>
> PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19707. UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 00:01:21 UTC
From: Jim Shorney
Topic: 19707 Message: 19707

So a nice UV-3 found it's way into the fold yesterday. As I am playing with it on the bench I noticed that the LED behind the MHz digit was much dimmer than the others, so much so as to be all but invisible in normal room lighting. So I decided to change the LEDs out and I decided to try white LEDs just for fun, to let the numbers assume the natural color of the plastic dials. Those of you in the know are probably chuckling already, but I think it looks quite nice and is highly visible.

So, as I am doing this I drop an LED into the bowels of the front of the radio. Rather than unhook all my wires and move stuff so I could flip the radio over and shake it, I decided to just remove the four screws and pop the "control head" off. As I was doing this I heard something rattle that definitely did not sound like an LED. What it sounded like was a loose "U"-shaped piece of aluminum that was caught up by one of the plastic dials. I successfully extracted it, but I cannot figure out where and if it belongs in the radio.

If anyone out there is intimately familiar with the UV-3, could you please take a look at the photo that I have posted in the group photo section of this undicumented resident and see if it looks familiar to you? I strongly suspect that it is not supposed to be in the radio. You can also enjoy a photo of my "natural" dial lighting while you are there...

73

-Jim
NU0C
--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19708. For Sale: Early T-4 Transmitter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 00:17:03 UTC
From: Steve Wedge
Topic: 19708 Message: 19708

I've seen some other ones for sale online recently - figured I'd offer this to you guys first before putting it out into the Interwebs.

This is a very early T-4 Reciter, serial number 0017. The factory apparently had switched to using a 6AU6 in V3, but their stencil on the chassis was probably "6HS6" - they put a label over the original silkscreen, with "6AU6" in the same stenciling. The RF TUNE knob is a regular lined knob and it directly drives the coil rack. I estimate it was built in late 1965, the Sylvania tubes in it are coded "518". Finals were replaced at some point, because their code starts with "3", which I would guess would be 1973 or 1983. The neutralization was also off when I got it, suggesting the previous owner simply replaced the finals and didn't bother re-neutralizing.

The chassis is in very good to excellent condition. There are a few "freckles" but no real corrosion is evident anywhere. Front panel is excellent and the covers are some of the best early covers I've seen! Output is a solid 120W on 80, 100W on 20 and about 80W at 28.7 MHz.

I've been playing with it for a few days and it's working great. I did an alignment on it, lubed the switches, used a little Cramolin on the contacts and dusted off the inside. This one was so clean that it did NOT need to be washed! It's over 95% original: the finals were replaced at one time and I replaced V3.

Asking $550 plus shipping. Photos available and will also be posted in the name of general interest. My shack and wallet are too small for me to keep it and I probably won't see another one for a long time.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19709. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 00:18:54 UTC
From: Steve Wedge
Topic: 19696 Message: 19709

No, but he does use foul language. And greengrocer's apostrophe

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Lee Hiers
Sent: Sunday, March 30, 2014 6:18 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

On Sun, Mar 30, 2014 at 6:02 PM, David Stinson <arc5@...> wrote:
I wrote the fellow with the $3500 "Buy it now" Drake L-4 on Ebay
and politely directed his attention to the working, tested L-4
listed

Someday, I will learn to mind my own business:

I'm sure he's fishing to find someone to pay him more than most of us would perceive to be it's worth, but in his defense, the first sentence in the listing says:

FOR THOSE WHO THINK THAT THIS IS THE SELLING PRICE, IT IS NOT THE SELLING PRICE. THE AD HAS "MAKE OFFER" TO ALLOW EBAYER'S TO MAKE A REASONABLE OFFER.

FWIW...and that doesn't mean he isn't a jerk, obviously...

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

[Non-text portions of this message have been removed]

19710. Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 00:20:48 UTC
From: Steve Wedge
Topic: 19704 Message: 19710

Ken, I've seen them go for as much as $250. They are quite rare.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: k6ctw@...
Sent: Sunday, March 30, 2014 7:40 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

A general question for the group. I have a 4-NB in my R-4C but on a vintage net, they mentioned that these units are unobtanium. I've done a little checking and that appears that he is correct. So, I wrote to Drake and asked if they could provide information on the coils and they said they didn't have it anymore. Thus, what I plan on doing is taking measurements from the ones on my 4-NB. I'm currently in the process of re-drawing the schematic in to Express PCB package and may follow that with a layout once I get all the appropriate information. I'll let the list know what I find out about making a direct replacement and the layout and parts costs if that can be determined. An interesting experiment eh?

Now a question for all of you, Does anyone have any idea of what original units go for now on eBay? That will give me an idea of wether this is a worthwhile exercise of just a waste of time. Thanks in advance for any advice/comments/etc.

73 - ken

PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19711. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:01:26 UTC
From: Richard Knoppow
Topic: 19696 Message: 19711

----- Original Message -----
From: "David Stinson" <arc5@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 30, 2014 4:39 PM
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

>I got a follow-up.
> The man just lost his mother today.
> A foul mood may be .... understandable.

I think you are being very kind.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19712. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:15:49 UTC
From: Michael. J. Trussell
Topic: 19707 Message: 19712

I would very interested also to know if you find out where that bracket goes.Mine also fell out when I replaced my s- meter light.

Mike W8FLT

On Mar 30, 2014, at 8:01 PM, "Jim Shorney" <jshorney@...> wrote:

>
> So a nice UV-3 found it's way into the fold yesterday. As I am playing with it
> on the bench I noticed that the LED behind the MHz digit was much dimmer than
> the others, so much so as to be all but invisible in normal room lighting. So I
> decided to change the LEDs out and I decided to try white LEDs just for fun, to
> let the numbers assume the natural color of the plastic dials. Those of you in
> the know are probably chuckling already, but I think it looks quite nice and is
> highly visible.
>
> So, as I am doing this I drop an LED into the bowels of the front of the radio.
> Rather than unhook all my wires and move stuff so I could flip the radio over
> and shake it, I decided to just remove the four screws and pop the "control
> head" off. As I was doing this I heard something rattle that definitely did not
> sound like an LED. What it sounded like was a loose "U"-shaped piece of
> aluminum that was caught up by one of the plastic dials. I successfully
> extracted it, but I cannot figure out where and if it belongs in the radio.
>
> If anyone out there is intimately familiar with the UV-3, could you please take
> a look at the photo that I have posted in the group photo section of this
> undicumented resident and see if it looks familiar to you? I strongly suspect
> that it is not supposed to be in the radio. You can also enjoy a photo of my
> "natural" dial lighting while you are there...
>
> 73
>
> -Jim
> NU0C
> --
> The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris,
"The Doctor's Wife"
>
>

19713. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:17:53 UTC
From: Steve Wedge
Topic: 19696 Message: 19713

It also is pegging my BS-Detector...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Richard Knoppow
Sent: Sunday, March 30, 2014 9:01 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

----- Original Message -----
From: "David Stinson" <arc5@...>
To: <DrakeRadio@...m>
Sent: Sunday, March 30, 2014 4:39 PM
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

>I got a follow-up.
> The man just lost his mother today.
> A foul mood may be .... understandable.

I think you are being very kind.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19714. Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:26:01 UTC
From: el34guy@...
Topic: 19704 Message: 19714

I have a bhp dsp module hooked up to my Drake tr7 and it does a great job. Admittedly, my tr7 also has the noise blanker. I think I would try an external dsp device to see if I could get by with that for noise reduction. I'm sure it would do well and cover a lot of things the NB might not. Plus its cheaper than an ebay board. I got mine for about 150 bux if I remember correctly. There are a few varieties of dsp's out there to choose from. YMMV

73
Mark
W0NCL

-----Original Message-----
From: Steve Wedge <w1es1982@triad.rr.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 30, 2014 7:20 pm
Subject: Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Ken, I've seen them go for as much as $250. They are quite rare.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: k6ctw@...
Sent: Sunday, March 30, 2014 7:40 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

A general question for the group. I have a 4-NB in my R-4C but on a vintage net, they mentioned that these units are unobtanium. I've done a little checking and that appears that he is correct. So, I wrote to Drake and asked if they could provide information on the coils and they said they didn't have it anymore. Thus, what I plan on doing is taking measurements from the ones on my 4-NB. I'm currently in the process of re-drawing the schematic in to Express PCB package and may follow that with a layout once I get all the appropriate information. I'll let the list know what I find out about making a direct replacement and the layout and parts costs if that can be determined. An interesting experiment eh?

Now a question for all of you, Does anyone have any idea of what original units go for now on eBay? That will give me an idea of wether this is a worthwhile exercise of just a waste of time. Thanks in advance for any advice/comments/etc.

73 - ken

PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19715. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:31:13 UTC
From: Jim Wiley
Topic: 19696 Message: 19715

Yes, I am sure that is what his mother would want, to be remembered with foul language, particularly considering his choice of words.
.
She must be very, very proud of him.

- Jim, KL7CC

> The man just lost his mother today.
> A foul mood may be .... understandable.
>
>
>
>

19716. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 01:34:31 UTC
From: Jim Wiley
Topic: 19707 Message: 19716

The bracket serves no purpose whatsoever, except to drive anyone
attempting repairs nuts. In that, it serves, it's purpose magnificently.

- Jim, KL7CC

Michael. J. Trussell wrote:
> I would very interested also to know if you find out where that
> bracket goes.Mine also fell out when I replaced my s- meter light.
>
> Mike W8FLT
>

19717. RE: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 02:00:59 UTC
From: Keith R. Erickson
Topic: 19704 Message: 19717

The Radio Shack DSP that they made in the late 80s or early 90s always worked well as an external device.

K0GNW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of el34guy@...
Sent: Sunday, March 30, 2014 8:26 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

I have a bhp dsp module hooked up to my Drake tr7 and it does a great job. Admittedly, my tr7 also has the noise blanker. I think I would try an external dsp device to see if I could get by with that for noise reduction. I'm sure it would do well and cover a lot of things the NB might not. Plus its cheaper than an ebay board. I got mine for about 150 bux if I remember correctly. There are a few varieties of dsp's out there to choose from. YMMV

73

Mark

W0NCL

-----Original Message-----
From: Steve Wedge <w1es1982@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Mar 30, 2014 7:20 pm
Subject: Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Ken, I've seen them go for as much as $250. They are quite rare.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: k6ctw@...

Sent: Sunday, March 30, 2014 7:40 PM

To: DrakeRadio@yahoogroups.com

Subject: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

A general question for the group. I have a 4-NB in my R-4C but on a vintage net, they mentioned that these units are unobtanium. I've done a little

checking and that appears that he is correct. So, I wrote to Drake and asked if they could provide information on the coils and they said they didn't have it anymore. Thus, what I plan on doing is taking measurements from the ones on my 4-NB. I'm currently in the process of re-drawing the schematic in to Express PCB package and may follow that with a layout once I get all the appropriate information. I'll let the list know what I find out about making a direct replacement and the layout and parts costs if that can be determined. An interesting experiment eh?

Now a question for all of you, Does anyone have any idea of what original units go for now on eBay? That will give me an idea of wether this is a worthwhile exercise of just a waste of time. Thanks in advance for any advice/comments/etc.

73 - ken

PS - same goes for the 34-PNB noise blanker for the TR-4 series?

19718. RE: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 02:13:13 UTC
From: <k6ctw@...>
Topic: 19704 Message: 19718

I have an old DSP-9, which I tried on my 2-B and it was really not that effective on the noise I have here. The one on my R-4C is very effective on the noise around 3.550 MHz (any ideas as to the sources for this frequency?). The one on the R-4A is not as effective on it. Probably cuz it was designed for ignition noise and the R-4C was probably there to help with longer pulses like those from the "woodpecker" over-the-horizon radar the Russians had in the 60's 70's and 80's (till Chernobyl blew up as that was their primary source of power for the array, or so I've been told).

Anyway, having a duplicate original for your new/old R-4C sounded like an interesting idea but at $250 for one, it may not be cost effective. I'll let you all know.

73 - ken

19719. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 02:17:24 UTC
From: <k9mpmradio@...>
Topic: 19707 Message: 19719

Looks like the tool included with the radio to pull the band boards for changing the diodes.
Dean
K9QB

19720. Re: [DrakeRadio] Audiophool Potty-Mouth

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 03:53:10 UTC
From: <w7apm@...>
Topic: 19696 Message: 19720

and mine

--- w1es1982@triad.rr.com wrote:

From: "Steve Wedge" <w1es1982@triad.rr.com>
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth
Date: Sun, 30 Mar 2014 21:17:53 -0400

It also is pegging my BS-Detector...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Richard Knoppow

Sent: Sunday, March 30, 2014 9:01 PM

To: DrakeRadio@yahoogroups.com

Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

----- Original Message -----
From: "David Stinson" <arc5@ix.netcom.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, March 30, 2014 4:39 PM
Subject: Re: [DrakeRadio] Audiophool Potty-Mouth

>I got a follow-up.
> The man just lost his mother today.
> A foul mood may be .... understandable.

I think you are being very kind.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@ix.netcom.com

19721. Re: [DrakeRadio] Drake 4-NB (noise blanker for the R-4C)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 03:59:37 UTC
From: Charles Ahlgren
Topic: 19704 Message: 19721

Ken:

I purchased mine on eBay last Summer for $165. The unit was in excellent condx and it was truly plug and play for me. That is the only 4NB I have seen on eBay since, so there are not a lot of them being traded out thee.

Last Spring, a good friend of mine gave me his son's old ham rig. That just happened to be a Drake C-line. And it looks great on my operating table next to my Drake A-line! I had heard that the 4NB was a fantastic noise blanker, so I went to looking for one on eBay, and just got lucky, I suppose. I don't think there is much competition for them; at least that was my feeling after winning the auction.

BTW, I recently purchased a 34-PNB for my Drake TR4CWrit on eBay. Cost was $245.

Hope that helps.

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Sun, Mar 30, 2014 at 4:40 PM, <k6ctw@...> wrote:

>
>
> A general question for the group. I have a 4-NB in my R-4C but on a
> vintage net, they mentioned that these units are unobtanium. I've done a
> little checking and that appears that he is correct. So, I wrote to Drake
> and asked if they could provide information on the coils and they said they
> didn't have it anymore. Thus, what I plan on doing is taking measurements
> from the ones on my 4-NB. I'm currently in the process of re-drawing the
> schematic in to Express PCB package and may follow that with a layout once
> I get all the appropriate information. I'll let the list know what I find
> out about making a direct replacement and the layout and parts costs if
> that can be determined. An interesting experiment eh?
>
> Now a question for all of you, Does anyone have any idea of what original
> units go for now on eBay? That will give me an idea of wether this is a
> worthwhile exercise of just a waste of time. Thanks in advance for any
> advice/comments/etc.
>
> 73 - ken
>
> PS - same goes for the 34-PNB noise blanker for the TR-4 series?
>
>

19722. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 04:05:50 UTC
From: Jim Shorney
Topic: 19707 Message: 19722

Nope. Not even close.

73

-Jim
NU0C

On 30 Mar 2014 19:17:24 -0700, k9mpmradio@... wrote:

> Looks like the tool included with the radio to pull the band boards for changing the diodes.
> Dean
> K9QB

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19723. Re: UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 04:11:15 UTC
From: David Stinson
Topic: 19707 Message: 19723

It might be dangerous without that part in the right place.
You should ship the UV-3 to me so I can investigate.
You'll be safe that way.
I promise to finish my "investigation" and get it back
to you some time this decade. Promise....

19724. Re: [DrakeRadio] Re: UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 04:20:55 UTC
From: Jim Shorney
Topic: 19707 Message: 19724

That tactic never works when I try it, so nice try... :)

73

-Jim
NU0C

On Sun, 30 Mar 2014 23:11:15 -0500, David Stinson wrote:

>It might be dangerous without that part in the right place.
>You should ship the UV-3 to me so I can investigate.
>You'll be safe that way.
>I promise to finish my "investigation" and get it back
>to you some time this decade. Promise....
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19725. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 10:34:34 UTC
From: k9mpmradio
Topic: 19707 Message: 19725

Should have been using my glasses. Went down in the shack today. Yup differnt. I have seen that bracket when I have one of mine apart years ago.
Dean
K9qb

Sent from my U.S. Cellular® Smartphone

-------- Original message --------
From: Jim Shorney <jshorney@inebraska.com>
Date:03/30/2014 11:05 PM (GMT-06:00)
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] UV-3 Au Natural

Nope. Not even close.

73

-Jim
NU0C

On 30 Mar 2014 19:17:24 -0700, k9mpmradio@gmail.com wrote:

> Looks like the tool included with the radio to pull the band boards for changing the diodes.
> Dean
> K9QB

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19726. WTB: C-4 Console

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 13:24:45 UTC
From: <mikek4qu@...>
Topic: 19726 Message: 19726

Looking for a C-4 Console...anybody have one for sale? Thanks and 73,
Mike K4QU

19727. Re: [DrakeRadio] WTB: C-4 Console

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 14:47:11 UTC
From: Dan Galligan
Topic: 19726 Message: 19727

Mike,
I have one, and am in process of divesting from all of my excess tube radio gear. It is ONLY the station console, there are none of the external parts there, that normally go with it. It does have the display replaced, nicely done, too, with a blue L.E.D. display.
I overpaid for it, not realizing that it was incomplete. I paid $250 plus shipping. But that's not your issue. It's in great shape, but needs the power strip, and actual tower top antenna switch box.
I think $150 is a very fair price, and if you're interested, I will get it out, and get some photos for you.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Mar 31, 2014, at 8:24, mikek4qu@... wrote:
>
>
>
> Looking for a C-4 Console...anybody have one for sale?
> Thanks and 73,
> Mike K4QU
>
>
>

19728. MN-2000 Adjustment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 00:18:09 UTC
From: <kmx888@...>
Topic: 19728 Message: 19728

I have my MN-200 on the bench and replaced the meter. I notice that there are two pots in the back as part of a circuit board. Seeing something that is adjustable makes me think there is a reason. I cannot find any adjustment or "alignment" instructions anywhere online or in the drake manuals. Any ideas or is this better left alone. Kevin
KD0ILM/XV2KM

19729. Re: [DrakeRadio] MN-2000 Adjustment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 00:21:15 UTC
From: Evan Rolek
Topic: 19728 Message: 19729

Unless one has a quality dummy load, and an accurate external SWR/wattmeter, might be best to leave well enough alone...

-----Original Message-----
From: kmx888 <kmx888@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, Mar 31, 2014 8:18 pm
Subject: [DrakeRadio] MN-2000 Adjustment

I have my MN-200 on the bench and replaced the meter. I notice that there are two pots in the back as part of a circuit board. Seeing something that is adjustable makes me think there is a reason. I cannot find any adjustment or "alignment" instructions anywhere online or in the drake manuals. Any ideas or is this better left alone.
Kevin
KD0ILM/XV2KM

19730. Re: [DrakeRadio] MN-2000 Adjustment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 00:38:35 UTC
From: Doug
Topic: 19728 Message: 19730

Would require a very accurate wattmeter at both 200 and 2000 watts, a stout dummy load and an amp capable of 2KW WOULD be my guess.

Sent from my iPhone

> On Mar 31, 2014, at 20:18, <kmx888@...> wrote:
>
> I have my MN-200 on the bench and replaced the meter. I notice that there are two pots in the back as part of a circuit board. Seeing something that is adjustable makes me think there is a reason. I cannot find any adjustment or "alignment" instructions anywhere online or in the drake manuals. Any ideas or is this better left alone.
>
> Kevin
> KD0ILM/XV2KM
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

19731. Re: [DrakeRadio] MN-2000 Adjustment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 02:07:15 UTC
From: Richard Knoppow
Topic: 19728 Message: 19731

----- Original Message -----
From: "Doug" <dcoffman@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, March 31, 2014 5:38 PM
Subject: Re: [DrakeRadio] MN-2000 Adjustment

Would require a very accurate wattmeter at both 200 and 2000
watts, a stout dummy load and an amp capable of 2KW WOULD be
my guess.

You need a good dummy load but can measure power in
terms of voltage across the load. For this you need a good
T connector. The RF voltmeter needs to be reasonably
accurate but a meter like the General Radio `1800A/B or
Hewlett-Packard 410-B or C will do. The power is simply
P=E^2/R. If you have access to a good RF impedance bridge
you can check that the dummy load is at 50 ohms and is
non-reactive. you can calibrate the watt meter at its lowest
frequency to eliminate as much as possible the effect of
stray reactance. The cables should be as short as possible
and the voltage measured as close to the dummy load terminal
as possible.
While the voltmeter may respond to harmonics those are
usually quite low from most ham transmitters.
You do not have to set the trimmer at full scale
although that is best. A mid scale setting is usually good
enough. Unless you think the wattmeter is inaccurate I
would leave it alone.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19732. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 05:22:28 UTC
From: VE3AX/7
Topic: 19707 Message: 19732

Jim:

I just opened the UV-3/144 (serial 297) I have on my service bench and no joy – nothing that looks like what you show in the pic.

There is a “similar” shaped wire tool for removing the boards loosely tucked into a clip in the speaker compartment, but you have already discounted this where yours is concerned, unless someone attempted a homebrew version and missed???

There is a 1/4” wide aluminum u-shaped (of sorts) band over the back of the meter – one end is riveted so not likely going to fall out on its own. Other end has a screw in it.

I even pulled the 4 panel screws and removed the front panel from its edge connector – no wayward anythings!

Sorry – best I can do. I can try opening one of the 3 band versions tomorrow evening but doubt that will turn up anything.

73

Peter
VE3AX/7

From: Jim Shorney
Sent: Sunday, March 30, 2014 5:01 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] UV-3 Au Natural

So a nice UV-3 found it's way into the fold yesterday. As I am playing with it on the bench I noticed that the LED behind the MHz digit was much dimmer than the others, so much so as to be all but invisible in normal room lighting. So I decided to change the LEDs out and I decided to try white LEDs just for fun, to let the numbers assume the natural color of the plastic dials. Those of you in the know are probably chuckling already, but I think it looks quite nice and is highly visible.

So, as I am doing this I drop an LED into the bowels of the front of the radio. Rather than unhook all my wires and move stuff so I could flip the radio over and shake it, I decided to just remove the four screws and pop the "control head" off. As I was doing this I heard something rattle that definitely did not sound like an LED. What it sounded like was a loose "U"-shaped piece of aluminum that was caught up by one of the plastic dials. I successfully extracted it, but I cannot figure out where and if it belongs in the radio.

If anyone out there is intimately familiar with the UV-3, could you please take a look at the photo that I have posted in the group photo section of this undicumented resident and see if it looks familiar to you? I strongly suspect that it is not supposed to be in the radio. You can also enjoy a photo of my

"natural" dial lighting while you are there...

73

-Jim
NU0C
--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

19733. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 13:14:33 UTC
From: Joe Pyles
Topic: 19707 Message: 19733

>I have a 3 band UV3 and the picture you uploaded
>is the board puller clipped on next to the speaker.
If you look in the owners manual it is mentioned on top of page 3-8.

>73, Joe KC9LAD
>
>
>
>So a nice UV-3 found it's way into the fold yesterday. As I am playing with it
>on the bench I noticed that the LED behind the MHz digit was much dimmer than
>the others, so much so as to be all but
>invisible in normal room lighting. So I
>decided to change the LEDs out and I decided to
>try white LEDs just for fun, to
>let the numbers assume the natural color of the plastic dials. Those of you in
>the know are probably chuckling already, but I
>think it looks quite nice and is
>highly visible.
>
>So, as I am doing this I drop an LED into the
>bowels of the front of the radio.
>Rather than unhook all my wires and move stuff so I could flip the radio over
>and shake it, I decided to just remove the four screws and pop the "control
>head" off. As I was doing this I heard something
>rattle that definitely did not
>sound like an LED. What it sounded like was a loose "U"-shaped piece of
>aluminum that was caught up by one of the plastic dials. I successfully
>extracted it, but I cannot figure out where and if it belongs in the radio.
>
>If anyone out there is intimately familiar with
>the UV-3, could you please take
>a look at the photo that I have posted in the group photo section of this
>undicumented resident and see if it looks familiar to you? I strongly suspect
>that it is not supposed to be in the radio. You can also enjoy a photo of my
>"natural" dial lighting while you are there...
>
>73
>
>-Jim
>NU0C
>--
>The universe we're in will reach absolute zero
>in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

19734. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 13:17:45 UTC
From: Joe Pyles
Topic: 19707 Message: 19734

Never mind, I just looked again at your picture
and it's too short to be the board puller, I dont
see anything in mine that looks like that.

73, Joe KC9LAD

At 09:14 AM 4/1/2014, you wrote:
>
>
>>I have a 3 band UV3 and the picture you
>>uploaded is the board puller clipped on next to the speaker.
>If you look in the owners manual it is mentioned on top of page 3-8.
>
>>73, Joe KC9LAD
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>>
>>So a nice UV-3 found it's way into the fold
>>yesterday. As I am playing with it
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>>invisible in normal room lighting. So I
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>>try white LEDs just for fun, to
>>let the numbers assume the natural color of the
>>plastic dials. Those of you in
>>the know are probably chuckling already, but I
>>think it looks quite nice and is
>>highly visible.
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>>bowels of the front of the radio.
>>Rather than unhook all my wires and move stuff so I could flip the radio over
>>and shake it, I decided to just remove the four screws and pop the "control
>>head" off. As I was doing this I heard
>>something rattle that definitely did not
>>sound like an LED. What it sounded like was a loose "U"-shaped piece of
>>aluminum that was caught up by one of the plastic dials. I successfully
>>extracted it, but I cannot figure out where and if it belongs in the radio.
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>>If anyone out there is intimately familiar with
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>>a look at the photo that I have posted in the group photo section of this
>>undicumented resident and see if it looks familiar to you? I strongly suspect
>>that it is not supposed to be in the radio. You can also enjoy a photo of my

>>"natural" dial lighting while you are there...
>>
>>73
>>
>>-Jim
>>NU0C
>>--
>>The universe we're in will reach absolute zero
>>in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

19735. L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 14:34:24 UTC
From: Bill Gaines
Topic: 19735 Message: 19735

I am shopping for a replacement plate transformer for my L4B. One side of the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?

I did locate one but the owner has refused to ship it even though I am footing the bill.

Bill AD8P

19736. Re: [DrakeRadio] L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 16:51:59 UTC
From: L L bahr
Topic: 19735 Message: 19736

Why not have it rewound? Heyboer can do a great job at a fair price.
Lee, w0vt

----- Original Message -----

From: "Bill Gaines" <ad8p@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 9:34:24 AM
Subject: [DrakeRadio] L4B Issues

I am shopping for a replacement plate transformer for my L4B. One side of the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?

I did locate one but the owner has refused to ship it even though I am footing the bill.

Bill AD8P

19737. Re: [DrakeRadio] MN-2000 Adjustment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 17:11:43 UTC
From: <kmx888@...>
Topic: 19728 Message: 19737

Leave well enough alone - Some of the most difficult words in the English Language for a Ham...kind of like "It it ain't broke don't fix it". Because I do not have good enough equipment I think I will take your advice. Thanks for bringing me back from the edge.
Best Regards,
Kevin
KD0ILM/XV2KM

19738. Re: [DrakeRadio] L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 17:13:45 UTC
From: Bill Gaines
Topic: 19735 Message: 19738

Right now what I have found is $452 for rewinding. This does not include shipping. What I have also found is a complete supply where the seller is unwilling to ship but he wants $400 for it. It is several hunderd miles from me so it isn't practical to pick it up. Perhaps there is a used but working xfmr out in cyberspace where the seller is willing to ship it. I don't think Heyboer is where I originally checked. I will Google them and check their prices out.

Thanks,

From: L L bahr
Sent: Tuesday, April 01, 2014 12:51 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B Issues

Why not have it rewound? Heyboer can do a great job at a fair price.

Lee, w0vt

From: "Bill Gaines" <ad8p@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 9:34:24 AM
Subject: [DrakeRadio] L4B Issues

I am shopping for a replacement plate transformer for my L4B. One side of the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?

I did locate one but the owner has refused to ship it even though I am footing the bill.

Bill AD8P

19739. Re: [DrakeRadio] L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 19:29:44 UTC
From: vacuuminded2@...
Topic: 19735 Message: 19739

Have you checked Ameritron's transformer offerings? I know they have one for a lot less than $400, that people have used in the SB-220. The footprint may not be identical, but surely they have something that meets or exceeds what you need.

Chris

Sent from my outdated iPhone wireless thingy

On Apr 1, 2014, at 12:13 PM, "Bill Gaines" <ad8p@...> wrote:

> Right now what I have found is $452 for rewinding. This does not include shipping. What I have also found is a complete supply where the seller is unwilling to ship but he wants $400 for it. It is several hunderd miles from me so it isn’t practical to pick it up. Perhaps there is a used but working xfmr out in cyberspace where the seller is willing to ship it. I don’t think Heyboer is where I originally checked. I will Google them and check their prices out.
>
> Thanks,
>
> From: L L bahr
> Sent: Tuesday, April 01, 2014 12:51 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] L4B Issues
>
>
> Why not have it rewound? Heyboer can do a great job at a fair price.
>
> Lee, w0vt
>
>
> From: "Bill Gaines" <ad8p@wcoil.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, April 1, 2014 9:34:24 AM
> Subject: [DrakeRadio] L4B Issues
>
>
> I am shopping for a replacement plate transformer for my L4B. One side of the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?
>
> I did locate one but the owner has refused to ship it even though I am footing the bill.
>
> Bill AD8P
>
>
>

>

19740. Re: [DrakeRadio] L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 19:42:01 UTC
From: vacuuminded2@...
Topic: 19735 Message: 19740

Also Dahl lists a (actually many options available) direct replacement for $390.

C

Sent from my outdated iPhone wireless thingy

On Apr 1, 2014, at 12:13 PM, "Bill Gaines" <ad8p@...> wrote:

> Right now what I have found is $452 for rewinding. This does not include shipping. What I have also found is a complete supply where the seller is unwilling to ship but he wants $400 for it. It is several hunderd miles from me so it isn't practical to pick it up. Perhaps there is a used but working xfmr out in cyberspace where the seller is willing to ship it. I don't think Heyboer is where I originally checked. I will Google them and check their prices out.
>
> Thanks,
>
> From: L L bahr
> Sent: Tuesday, April 01, 2014 12:51 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] L4B Issues
>
>
> Why not have it rewound? Heyboer can do a great job at a fair price.
>
> Lee, w0vt
>
>
> From: "Bill Gaines" <ad8p@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, April 1, 2014 9:34:24 AM
> Subject: [DrakeRadio] L4B Issues
>
>
> I am shopping for a replacement plate transformer for my L4B. One side of the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?
>
> I did locate one but the owner has refused to ship it even though I am footing the bill.
>
> Bill AD8P
>
>
>
>

19741. Re: [DrakeRadio] L4B Issues

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 22:12:31 UTC
From: H. Bruce Smith
Topic: 19735 Message: 19741

Here is another transformer rewinding service in Orno Maine, WZ1M
xfrmrs@roadrunner.com ,some excellent reviews on eHam.net
207-942-5745 Good Luck..... Bruce VE1ANH
On Tuesday, April 1, 2014 5:02:40 PM, "vacuuminded2@..." <vacuuminded2@...> wrote:

Also Dahl lists a (actually many options available) direct replacement for $390.

C

Sent from my outdated iPhone wireless thingy

On Apr 1, 2014, at 12:13 PM, "Bill Gaines" <ad8p@...> wrote:

>Right now what I have found is $452 for rewinding. This does not include
shipping. What I have also found is a complete supply where the seller is
unwilling to ship but he wants $400 for it. It is several hunderd miles from me
so it isn't practical to pick it up. Perhaps there is a used but working xfmr
out in cyberspace where the seller is willing to ship it. I don't think Heyboer
is where I originally checked. I will Google them and check their prices
out.
>
>Thanks,
>
>
>From: L L bahr
>Sent: Tuesday, April 01, 2014 12:51 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] L4B Issues
>
>
>Why not have it rewound? Heyboer can do a great job at a fair
price.
>Lee, w0vt
>
>
>
>_____
>
>From: "Bill Gaines" <ad8p@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Tuesday, April 1, 2014 9:34:24
AM
>Subject: [DrakeRadio] L4B Issues
>
>
>I am shopping for a replacement plate transformer for my L4B. One side of

the primary has opened up and it is the low power (cw) side. The amp and power supply still work in the high power (SSB) position. At this moment what are my chances of finding one here?
>
>I did locate one but the owner has refused to ship it even though I am footing the bill.
>
>Bill AD8P
>
>
>

19742. WTB...Drake T4X Restoration

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 22:34:25 UTC
From: <n1ohn@...>
Topic: 19742 Message: 19742

Hello all!

I'm currently looking for a Drake T4X... for my next restoration project. If you have one that's networking and in restorable condition please let me know.

Thanks
Dave
N1OHN@yahoo.com

19743. Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-01 22:51:53 UTC
From: WB6TNF
Topic: 19743 Message: 19743

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19744. Re: [DrakeRadio] Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:09:45 UTC
From: WB6TNF
Topic: 19743 Message: 19744

Just wanted a clarify, It is the frequency dial itself that is warped (the round wheel with the frequency numbers), not the clear window.
Jim - WB6TNF

On Tuesday, April 1, 2014 3:52 PM, WB6TNF <handyjimbo@...> wrote:

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19745. Re: [DrakeRadio] Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:19:54 UTC
From: L L bahr
Topic: 19743 Message: 19745

Go to:
www.2b radioparts .com radioparts .com

They have the lens.
Lee, w0vt

----- Original Message -----

From: "WB6TNF" <handyjimbo@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:09:45 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Just wanted a clarify, It is the frequency dial itself that is warped (the round wheel with the frequency numbers), not the clear window.
Jim - WB6TNF

On Tuesday, April 1, 2014 3:52 PM, WB6TNF <handyjimbo@...> wrote:

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19746. Re: [DrakeRadio] Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:29:39 UTC
From: WB6TNF
Topic: 19743 Message: 19746

Lee, What I need is the round frequency dial (the one with all the frequencies on it).

On Tuesday, April 1, 2014 5:20 PM, L L bahr <pulsarxp@embarqmail.com> wrote:

Go to:
www.2bradioparts.com

They have the lens.
Lee, w0vt

From: "WB6TNF" <handyjimbo@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:09:45 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Just wanted a clarify, It is the frequency dial itself that is warped (the round wheel with the frequency numbers), not the clear window.
Jim - WB6TNF

On Tuesday, April 1, 2014 3:52 PM, WB6TNF <handyjimbo@...> wrote:

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19747. Re: [DrakeRadio] Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:34:32 UTC
From: L L bahr
Topic: 19743 Message: 19747

OK, got you now. I know of nobody making them. Best you can do is heat it and put it on a flat su rface and hope it works. Good luck.
Lee, w0vt

----- Original Message -----

From: "WB6TNF" <handyjimbo@yahoo.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:29:39 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Lee, What I need is the round frequency dial (the one with all the frequencies on it).

On Tuesday, April 1, 2014 5:20 PM, L L bahr <pulsarxp@embarqmail.com> wrote:

Go to:
www.2b radioparts .com

They have the lens.
Lee, w0vt

From: "WB6TNF" <handyjimbo@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:09:45 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Just wanted a clarify, It is the frequency dial itself that is warped (the round wheel with the frequency numbers), not the clear window.
Jim - WB6TNF

On Tuesday, April 1, 2014 3:52 PM, WB6TNF <handyjimbo@...> wrote:

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19748. My new T4XC, sage from dead to ALIVE! (long)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:44:03 UTC
From: <rochep@...>
Topic: 19748 Message: 19748

Just got my first Drake transmitter, a T4XC in "unknown" condition, to pair with my "new" R4A. Got an AC4, checked AC4 voltages and it seems OK (still need to re-build with HeathkitShop kit). Tried to TUNE up TX, NO LUCK. Here is a sort of summary of my findings and Garey's help via email. Maybe someone else might find similar things and maybe this will help (I am Paul Roche!). Garey is great and was EXTREMELY understanding in helping me try to "understand" what was going on. I really appreciated it!

Paul Roche wrote:
With variac is at 115 V the TX makes a kind of "squealing" sound when on SSB. Not super loud, but I don't think its normal. I ignored it the sound (not knowing what). But when I went to try to "tune" it up by increasing the RF GAIN control there was NO increase on the meter. Something is wrong.
Paul Roche wrote:
The noise came from the 12BA6 tube. The 12BA6 tested bad in my Superior TV-11 (seemed DEAD). I put a new 12BA6 in and the noise was gone. All other tubes tested good (did not test PA tubes). But still increasing GAIN in TUNE mode does NOT give any increase in the meter. (Garey thought this was strange, maybe I should try "tuning" in CW mode).

Paul Roche wrote:
A straight key is plugged in but not keyed (yet). When I switch to TUNE I get the 70 mA idle current. All good. But when I then simply switch to CW the current goes to about 100 mA AND THEN IT GOES TO ZERO mA! Even with GAIN to MAX the 100 mA NEVER moves (when keyed in CW), regardless of what I do to PLATE, LOAD, RF TUNE, or GAIN control.
I measured all voltages. V2 plate (pin5) reads 80V instead of expected 240V. B+ comes through R25 (1.5K), I will see if it drifted high.
V2 (pin6) reads 44V instead of expected 95V. B+ comes through R26 (47K), I will see if it drifted high.
V2 (pin7) reads 0.8V instead of 2.2V. Not too bad but ...
V10 plate (pin1) reads 47V instead of expected 105V. B+ comes through R65 (100K), I will see if it drifted high.
V10 plate (pin7) reads -0.5V instead of expected -0.1V.
GARY RESPONDED:
Something bad wrong with V2. Pin 7 voltage LOW indicates that the stage is NOT drawing expected current. Does NOT account for low plate voltage though. Are you sure you have a good V2? (I am sure it is good) What happens to those voltages when you pull V2? I'm a little concerned about a short to ground in T2. Is there voltage drop across the Primary of T2?
Paul Roche wrote:
Here's whats going on. Poking around looking and tracing I found this burned component (sent picture to Garey)!!!
What is also strange is that B+ is 250V on one side of R65 (as expected) but only 47V on the other. Something seems amiss with R65, right?
I cannot determine WHAT is R66, that is why I need the manual!!
END OF STORY:
Gary told me it was R25 that was toast. EITHER Plate to Grid short in V2 or T2 is shorted.I

replaced R25; ALL GOOD NOW. I still have not ventured to check voltages around V10; I will wait to rebuild my AC4 before I do that.
But now it tunes up as it should, I can get 130 watts into my dummy load on 40CW and made my first QSO last night. Next thing, re-build AC4, re-check voltages, and try to align.

Hopefully this can help somebody. It sure was strange having the GAIN control do NOTHING.
paul

19749. Re: Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:47:27 UTC
From: radiomanL
Topic: 19743 Message: 19749

seems like you don't have anything to lose by trying . maybe putting it between 2 pieces of heavy glass and leaving it in the sun . just watch it so it does not melt . you could also send it to radio daze and see if they can duplicate it . ask them before you send it .

kd5pnt

19750. Re: [DrakeRadio] Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 00:52:50 UTC
From: William Houghton
Topic: 19743 Message: 19750

I have a TR-3 that has a bad soupcan filter. I have thought about either parting it out, selling it as a parts unit, or trying to find an early TR-4 filter to replace it (I'll have to review Garey's notes from a few weeks ago to see if TR-4 filters will sub and fit). Maybe this is the time to make the parting of ways decision.

From: WB6TNF <handyjimbo@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, April 1, 2014 5:29 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Lee, What I need is the round frequency dial (the one with all the frequencies on it).

On Tuesday, April 1, 2014 5:20 PM, L L bahr <pulsarxp@...> wrote:

Go to:
www.2bradioparts.com

They have the lens.
Lee, w0vt

From: "WB6TNF" <handyjimbo@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:09:45 PM
Subject: Re: [DrakeRadio] Need TR-3 Plastic Dial

Just wanted a clarify, It is the frequency dial itself that is warped (the round wheel with the frequency numbers), not the clear window.
Jim - WB6TNF

On Tuesday, April 1, 2014 3:52 PM, WB6TNF <handyjimbo@...> wrote:

I recently acquired a TR-3 from a SK Estate. The plastic dial face is badly warped. It appears to be the same as a TR-4. Any tips on flattening it out or does anyone have a good one for sale?
Also acquired a TR-4, MS-4 and AC-4.
Jim - WB6TNF

19751. Re: [DrakeRadio] Re: Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 01:53:25 UTC
From: Jim Wiley
Topic: 19743 Message: 19751

Put the dial between some sheets of waxed paper, then sandwich that between some plate glass or other smooth, flat objects. Then place all that under a weight, and leave in a warm place for a while, such as over a heat register or even above your radio gear for a few hours. Lacking anything else, using a kitchen oven on its lowest setting, WITH THE DOOR LEFT OPEN, for a while should do the trick. The waxed paper is to prevent the lettering on the dial from coming off and transferring to the plate glass. Disassemble the "sandwich" while still barely lukewarm. Do not open when hot.

- Jim, KL7CC

On 4/1/2014 4:47 PM, radiomanL wrote:
>
> seems like you don't have anything to lose by trying . maybe putting
> it between 2 pieces of heavy glass and leaving it in the sun . just
> watch it so it does not melt . you could also send it to radio daze
> and see if they can duplicate it . ask them before you send it .
> kd5pnt
>

19752. Re: [DrakeRadio] Re: Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 02:14:23 UTC
From: WB6TNF
Topic: 19743 Message: 19752

Jim (KL7CC), Thanks. Sounds like my best option so far.
WB6TNF

On Tuesday, April 1, 2014 6:53 PM, Jim Wiley <jwiley@...> wrote:

Put the dial between some sheets of waxed paper, then sandwich that between some plate glass or other smooth, flat objects. Then place all that under a weight, and leave in a warm place for a while, such as over a heat register or even above your radio gear for a few hours. Lacking anything else, using a kitchen oven on its lowest setting, WITH THE DOOR LEFT OPEN, for a while should do the trick. The waxed paper is to prevent the lettering on the dial from coming off and transferring to the plate glass. Disassemble the "sandwich" while still barely lukewarm. Do not open when hot.

- Jim, KL7CC

On 4/1/2014 4:47 PM, radiomanL wrote:

>seems like you don't have anything to lose by trying . maybe putting it between 2 pieces of heavy glass and leaving it in the sun . just watch it so it does not melt . you could also send it to radio daze and see if they can duplicate it . ask them before you send it .
>
>kd5pnt

19753. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 02:34:00 UTC
From: Jim Shorney
Topic: 19707 Message: 19753

Yep, the dimensions are all wrong and it's made out of aluminum. It would never hold up.

Thanks anyway.

73

-Jim
NU0C

On Tue, 01 Apr 2014 09:17:45 -0400, Joe Pyles wrote:

>Never mind, I just looked again at your picture
>and it's too short to be the board puller, I dont
>see anything in mine that looks like that.
>
>73, Joe KC9LAD
>
>At 09:14 AM 4/1/2014, you wrote:
>>
>>
>>>I have a 3 band UV3 and the picture you
>>>uploaded is the board puller clipped on next to the speaker.
>>If you look in the owners manual it is mentioned on top of page 3-8.
>>
>>>73, Joe KC9LAD
>>>
>>>
>>>
>>>So a nice UV-3 found it's way into the fold
>>>yesterday. As I am playing with it
>>>on the bench I noticed that the LED behind the MHz digit was much dimmer than
>>>the others, so much so as to be all but
>>>invisible in normal room lighting. So I
>>>decided to change the LEDs out and I decided to
>>>try white LEDs just for fun, to
>>>let the numbers assume the natural color of the
>>>plastic dials. Those of you in
>>>the know are probably chuckling already, but I
>>>think it looks quite nice and is
>>>highly visible.
>>>
>>>So, as I am doing this I drop an LED into the
>>>bowels of the front of the radio.
>>>Rather than unhook all my wires and move stuff so I could flip the radio over
>>>and shake it, I decided to just remove the four screws and pop the "control

>>>head" off. As I was doing this I heard
>>>something rattle that definitely did not
>>>sound like an LED. What it sounded like was a loose "U"-shaped piece of
>>>aluminum that was caught up by one of the plastic dials. I successfully
>>>extracted it, but I cannot figure out where and if it belongs in the radio.
>>>
>>>If anyone out there is intimately familiar with
>>>the UV-3, could you please take
>>>a look at the photo that I have posted in the group photo section of this
>>>undicumented resident and see if it looks familiar to you? I strongly suspect
>>>that it is not supposed to be in the radio. You can also enjoy a photo of my
>>>"natural" dial lighting while you are there...
>>>
>>>73
>>>
>>>-Jim
>>>NU0C
>>>--
>>>The universe we're in will reach absolute zero
>>>in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19754. Re: [DrakeRadio] UV-3 Au Natural

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 02:44:52 UTC
From: Jim Shorney
Topic: 19707 Message: 19754

Thanks for looking, Peter. The band behind the S-Meter in this one looks like spring steel, and is held in place by its own tension. So there's an interesting difference.

I didn't see the unknown item until I looked in the bottom of the control head, and it looked like it was caught up in between the dials and the front panel. I thought maybe it might belong there for some reason, but I can't imagine it being that loose.

Serial numbers on this unit are 10xxx for the main unit, and 979 for each of the two rear modules.

73

-Jim
NU0C

On Mon, 31 Mar 2014 22:22:28 -0700, VE3AX/7 wrote:

>Jim:
>
>I just opened the UV-3/144 (serial 297) I have on my service bench and no joy â☐☐ nothing that looks like what you show in the pic.
>
>There is a â☐☐similarâ☐☐ shaped wire tool for removing the boards loosely tucked into a clip in the speaker compartment, but you have already discounted this where yours is concerned, unless someone attempted a homebrew version and missed???
>
>There is a 1/4â☐☐ wide aluminum u-shaped (of sorts) band over the back of the meter â☐☐ one end is riveted so not likely going to fall out on its own. Other end has a screw in it.
>
>I even pulled the 4 panel screws and removed the front panel from its edge connector â☐☐ no wayward anythings!
>
>Sorry â☐☐ best I can do. I can try opening one of the 3 band versions tomorrow evening but doubt that will turn up anything.
>
>73
>
>Peter
>VE3AX/7
>
>From: Jim Shorney
>Sent: Sunday, March 30, 2014 5:01 PM
>To: drakeradio@yahoogroups.com
>Subject: [DrakeRadio] UV-3 Au Natural
>

>
>
>So a nice UV-3 found it's way into the fold yesterday. As I am playing with it
>on the bench I noticed that the LED behind the MHz digit was much dimmer than
>the others, so much so as to be all but invisible in normal room lighting. So I
>decided to change the LEDs out and I decided to try white LEDs just for fun, to
>let the numbers assume the natural color of the plastic dials. Those of you in
>the know are probably chuckling already, but I think it looks quite nice and is
>highly visible.
>
>So, as I am doing this I drop an LED into the bowels of the front of the radio.
>Rather than unhook all my wires and move stuff so I could flip the radio over
>and shake it, I decided to just remove the four screws and pop the "control
>head" off. As I was doing this I heard something rattle that definitely did not
>sound like an LED. What it sounded like was a loose "U"-shaped piece of
>aluminum that was caught up by one of the plastic dials. I successfully
>extracted it, but I cannot figure out where and if it belongs in the radio.
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>If anyone out there is intimately familiar with the UV-3, could you please take
>a look at the photo that I have posted in the group photo section of this
>undicumented resident and see if it looks familiar to you? I strongly suspect
>that it is not supposed to be in the radio. You can also enjoy a photo of my
>"natural" dial lighting while you are there...
>
>73
>
>-Jim
>NU0C
>--
>The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
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"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
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http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19755. Re: [DrakeRadio] Re: Need TR-3 Plastic Dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 03:28:28 UTC
From: L L bahr
Topic: 19743 Message: 19755

The only other thing you may have to do if all else fails is to try and find another PTO. In that case the dreaded Epay may be worth watching.
Lee, w0vt

----- Original Message -----

From: "radiomanL" <radiomanl@verizon.net>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 1, 2014 7:47:27 PM
Subject: [DrakeRadio] Re: Need TR-3 Plastic Dial

seems like you don't have anything to lose by trying . maybe putting it between 2 pieces of heavy glass and leaving it in the sun . just watch it so it does not melt . you could also send it to radio daze and see if they can duplicate it . ask them before you send it .

kd5pnt

19756. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 13:15:57 UTC
From: <dcoffman@...>
Topic: 19601 Message: 19756

Garey,

My apologies if this shows up twice; I posted a reply via my email on Sunday but it never showed up here, therefore I am posting it via the Yahoo page.

Garey,

I am using the Kits and Parts Wide band amplifier to amplify the N3ZI DDS output. It has winding instructions for 50 ohms and 200 ohms for the output. I have tried both iterations and still have a significant sensitivity issue; I have a loss of 2 to 4 S – Units, most significant on 10M.

The wideband amp output is 3.8 Vpp on 160, 80 and 40M. 3Vpp on 20M, 2Vpp on 15M and 1.5Vpp on 10M. These voltages are unloaded; not connected to the receiver. Connected to the receiver I get about a 1 volt drop on all bands but 10M drops a little farther. I am using low capacitance cable to connect the amp to the injection jack. I have measured the P-P voltage from the T-4XC injection jack and the amps output is fairly close.

I am at a loss as to the next step. I am thinking about a two stage amplifier in an attempt to generate about 6Vpp; if I can get the sensitivity issue resolved then I will attenuate the voltage until the sensitivity just starts to drop off. My elmer mentioned this technique with old VFOs on some other rigs and I thought I may give it a try due to the fact that I have no clue where to go next.

Any suggestions here?

Thanks for your time,

Doug – N9XTF

19757. Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 05:41:13 UTC
From: lane denune
Topic: 19757 Message: 19757

Greetings Group ; I have a possibly easy question concerning tuning of T4/TR4 any. How many Khz, up or down frequency from presently tuned up at, is safely tolerated by the PA before a need to re-tune and re-dip? I have a KWM-2 also and the manual says as much as 15Khz on 80m to 200Khz on 10m before re-tuning is required for that model. I don't recall ever seeing such specifics mentioned in my Drake transmitter manual(s)..

I am sold on re-tuning and running my Drake equipment conservatively but I would appreciate any input on the matter.

Thanks and 73 from Lane in Columbus Ohio. de n8aft

19758. Re: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 14:07:15 UTC
From: Garey Barrell
Topic: 19757 Message: 19758

Lane -

Welcome to the group!

The amount of frequency shift without retuning varies from band to band, as the KWM-2 manual
says. Those numbers are realistic, and a good guideline. However..... (there's always a 'however'!) The most important thing you can do to get maximum life from PA tubes is to be sure
that the PLATE is ALWAYS 'dipped'. If the LOAD control is off a little, you'll just see a little less output. Same for the RF TUNE control. But any power lost by undipped plates is HEAT
in the PA tubes.

So the short answer is, 'yes, you can move around without retuning', but your PA tubes will last
much longer if you just touch up the plate dip as a matter of course.

A small fan, blowing OUT either on top, or on the back of the PA cage will also greatly extend
PA tube life. A small, SILENT PC fan will move plenty of air, many run a fan on half its rated
voltage.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

lane denune wrote:
>
>
> Greetings Group ; I have a possibly easy question concerning tuning of T4/TR4 any. How many
> Khz, up or down frequency from presently tuned up at, is safely tolerated by the PA before a
> need to re-tune and re-dip? I have a KWM-2 also and the manual says as much as 15Khz on 80m to
> 200Khz on 10m before re-tuning is required for that model. I don't recall ever seeing such
> specifics mentioned in my Drake transmitter manual(s)..
> I am sold on re-tuning and running my Drake equipment conservatively but I would appreciate
> any input on the matter.
> Thanks and 73 from Lane in Columbus Ohio. de n8aft

>

19759. RE: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 14:23:13 UTC
From: Doug Coffman
Topic: 19757 Message: 19759

Lane,

One of the gurus will answer you shortly.

One of the big factors is how broad banded your antenna is. My 80 meter antenna is very narrow and pretty much any frequency movement requires adjustment.

On 10M, where my antenna is quite flat across the band, at a minimum I always re-dip the plate. This is a quick adjustment and should help preserve the 6JB6 tubes as they are on edge anyway. I let the amp go a little farther before I retune it but if I move 10Khz or so I retune. I assume this also helps reduce splatter.

73,

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of lane denune
Sent: Wednesday, April 2, 2014 1:41 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Just How Many?

Greetings Group ; I have a possibly easy question concerning tuning of T4/TR4 any. How many Khz, up or down frequency from presently tuned up at, is safely tolerated by the PA before a need to re-tune and re-dip? I have a KWM-2 also and the manual says as much as 15Khz on 80m to 200Khz on 10m before re-tuning is required for that model. I don't recall ever seeing such specifics mentioned in my Drake transmitter manual(s)..

I am sold on re-tuning and running my Drake equipment conservatively but I would appreciate any input on the matter.

Thanks and 73 from Lane in Columbus Ohio. de n8aft

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http://www.pdswireless.com

19760. Re: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 14:50:57 UTC
From: Dan Galligan
Topic: 19757 Message: 19760

Gee, I hate to be a "Johnny-come-lately", but I must concur, that dipping the plate, is of paramount importance, to PA tube life.
And, at the cost of tubes, these days, that is mighty important.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 2, 2014, at 9:23, Doug Coffman <dcoffman@...> wrote:
>
>
>
> Lane,
>
> One of the gurus will answer you shortly.
>
> One of the big factors is how broad banded your antenna is. My 80 meter antenna is very narrow and pretty much any frequency movement requires adjustment.
>
> On 10M, where my antenna is quite flat across the band, at a minimum I always re-dip the plate. This is a quick adjustment and should help preserve the 6JB6 tubes as they are on edge anyway. I let the amp go a little farther before I retune it but if I move 10Khz or so I retune. I assume this also helps reduce splatter.
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>
> Doug – N9XTF
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of lane denune
> Sent: Wednesday, April 2, 2014 1:41 AM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] Just How Many?
>
>
> Greetings Group ; I have a possibly easy question concerning tuning of T4/TR4 any. How

many Khz, up or down frequency from presently tuned up at, is safely tolerated by the PA before a need to re-tune and re-dip? I have a KWM-2 also and the manual says as much as 15Khz on 80m to 200Khz on 10m before re-tuning is required for that model. I don't recall ever seeing such specifics mentioned in my Drake transmitter manual(s)..
> I am sold on re-tuning and running my Drake equipment conservatively but I would appreciate any input on the matter.
> Thanks and 73 from Lane in Columbus Ohio. de n8aft
>
>
>
> PDSWireless
> Quick and Simple Internet Access
> Get it now!
>
>
>

19761. Re: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 15:21:18 UTC
From: <rochep@...>
Topic: 19757 Message: 19761

"And, at the cost of tubes, these days, that is mighty important"

I keep reading this on the web, and I was worried about blowing my finals. However, I am getting NOS 6BJ6 tubes for $3.50 each. What am I missing?

paul

19762. Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 15:26:20 UTC
From: <tjb813@...>
Topic: 19757 Message: 19762

Where are you getting 6jb6's for 3.50?

Thanks

Tim
KD8CN

19763. Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 15:35:16 UTC
From: <rochep@...>
Topic: 19757 Message: 19763

Tube Depot sells them for $3.95 each NOS
AES sells them for $4.20 (I think NOS)
ESRCVacuumtubes sells them for $3.00 (not sure NOS or not)
PTOP sells them for $3.25 NOS

paul

19764. Re: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 15:42:26 UTC
From: L L bahr
Topic: 19757 Message: 19764

These numbers don't agree with my 2014 tube lists. Maybe you are looking at a 1974 tube list. Come on, 6JB6s for $3.50? You have to be smoking something to believe this.
Lee, w0vt

----- Original Message -----

From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 2, 2014 10:35:16 AM
Subject: [DrakeRadio] Re: Just How Many?

Tube Depot sells them for $3.95 each NOS
AES sells them for $4.20 (I think NOS)
ESRCVacuumtubes sells them for $3.00 (not sure NOS or not)
PTOP sells them for $3.25 NOS

paul

19765. Re: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 15:48:15 UTC
From: Ken Winterling
Topic: 19757 Message: 19765

Well, Tube Depot is selling the 6BJ6 for $3.95. It is selling the 6JB6A
for $29.95.

The order of the letters matters...

Ken
WA2LBI

On Wed, Apr 2, 2014 at 11:42 AM, L L bahr <pulsarxp@...> wrote:

>
>
> These numbers don't agree with my 2014 tube lists. Maybe you are looking
> at a 1974 tube list. Come on, 6JB6s for $3.50? You have to be smoking
> something to believe this.
>
> Lee, w0vt
>
>
>
>
>
>
> ------------------------------
>
> *From: *rochep@...
> *To: *DrakeRadio@yahoogroups.com
> *Sent: *Wednesday, April 2, 2014 10:35:16 AM
> *Subject: *[DrakeRadio] Re: Just How Many?
>
>
>
>
>
> Tube Depot sells them for $3.95 each NOS
> AES sells them for $4.20 (I think NOS)
> ESRCVacuumtubes sells them for $3.00 (not sure NOS or not)
> PTOP sells them for $3.25 NOS
>
> paul
>
>
>
>
>

19766. Re: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:01:33 UTC
From: Barry
Topic: 19757 Message: 19766

Permutation vs. Combination. I never liked studying probabilities...

Regards,
Barry - N4BUQ

> Well, Tube Depot is selling the 6BJ6 for $3.95. It is selling the
> 6JB6A for $29.95.
>
>
>
>
> The order of the letters matters...
>
> Ken
> WA2LBI
>
>
> On Wed, Apr 2, 2014 at 11:42 AM, L L bahr < pulsarxp@... >
> wrote:
>
>
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>
>
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> be smoking something to believe this.
>
> Lee, w0vt
>
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> From: rochep@comcast.net
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, April 2, 2014 10:35:16 AM

> Subject: [DrakeRadio] Re: Just How Many?
>
>
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> PTOP sells them for $3.25 NOS
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> paul
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19767. Re: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:05:04 UTC
From: <rochep@...>
Topic: 19757 Message: 19767

i am dyslexic.
Anybody need any NOS 6BJ6 tubes? I'll sell them cheap! I just bought four of them.

haha, sucks to be me.

paul

19768. Re: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:09:05 UTC
From: Dan Galligan
Topic: 19757 Message: 19768

Paul,
I think the entire list, would happily buy out every tube we could afford, at those prices. I haven't seen a 6JB6A for those prices since the 1970's. Right now, the best source is RF Parts, and they're closer to $40, than they are to $4, from RF Parts, depending on matched pair, brand, etc. remember, that tube height is VERY, VERY IMPORTANT, when it comes to tubes in the PA of a Drake radio.
But, I do have to think, that you are possibly getting tube numbers mixed up. I'll have to go look at those prices.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 2, 2014, at 10:21, rochep@...t wrote:
>
>
>
> "And, at the cost of tubes, these days, that is mighty important"
>
> I keep reading this on the web, and I was worried about blowing my finals. However, I am getting NOS 6BJ6 tubes for $3.50 each. What am I missing?
>
> paul
>
>

19769. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:16:52 UTC
From: Garey Barrell
Topic: 19601 Message: 19769

Doug -

You're running into the low-pass filter on the DDS, and compounded by the bandwidth of the amp.

To reach 29.0 MHz on the radio, your INJ is at 34.55 MHz. The 'ZI filter is specified for 'operation up to 34 MHz', implying that the output is down at least 3, perhaps 6 dB at 34 MHz.
This is necessary to produce a 'clean' signal since the DDS 'image' is at 45.5 MHz, which 'ZI
specifies as down 40 dB. I don't know what test equipment you have available, but I would be
inclined to bypass the output filter on the 'ZI and see how well the image frequency is suppressed in the receiver PreMixer and Mixer stages. It would be a little trickier in the transmitter, we don't want spurious outputs just a few MHz away!! It may be possible to modify
the output filter in the 'ZI, moving the cutoff up just a bit to get 'some' attenuation of the
image.

The amplifier is specified as '2-30 MHz', begins to roll off about 20 MHz, and is down 3-5 dB by
35 MHz. So it's easy to see why it's down that far on 10M! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dcoffman@... wrote:
>
>
> Garey,
>
> My apologies if this shows up twice; I posted a reply via my email on Sunday but it never
> showed up here, therefore I am posting it via the Yahoo page.
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> Garey,
>
> I am using the Kits and Parts Wide band amplifier to amplify the N3ZI DDS output. It has
> winding instructions for 50 ohms and 200 ohms for the output. I have tried both iterations
> and still have a significant sensitivity issue; I have a loss of 2 to 4 S – Units, most
> significant on 10M.

>
> The wideband amp output is 3.8 Vpp on 160, 80 and 40M. 3Vpp on 20M, 2Vpp on 15M and 1.5Vpp on
> 10M. These voltages are unloaded; not connected to the receiver. Connected to the receiver I
> get about a 1 volt drop on all bands but 10M drops a little farther. I am using low
> capacitance cable to connect the amp to the injection jack. I have measured the P-P voltage
> from the T-4XC injection jack and the amps output is fairly close.
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> I am at a loss as to the next step. I am thinking about a two stage amplifier in an attempt
> to generate about 6Vpp; if I can get the sensitivity issue resolved then I will attenuate the
> voltage until the sensitivity just starts to drop off. My elmer mentioned this technique with
> old VFOs on some other rigs and I thought I may give it a try due to the fact that I have no
> clue where to go next.
>
> Any suggestions here?
>
> Thanks for your time,
>
> Doug – N9XTF
>
>

19770. Re: [DrakeRadio] Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:22:56 UTC
From: Garey Barrell
Topic: 19757 Message: 19770

Unless this is a typo, you got the right price..... For 6-B-J-6.... It DO make a difference for
6-J-B-6!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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> I keep reading this on the web, and I was worried about blowing my finals. However, I am
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>
> paul
>
>

19771. Re: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:26:04 UTC
From: Dan Galligan
Topic: 19757 Message: 19771

Paul,
I just checked those retailers, and found the following.
AES.....Doesn't carry 6JB6A's
Tube Depot.....$30
ESRCVacuum Tubes.....$22
Couldn't locate a PTOP
Tube Store.....$36, and that's for a 6JB6 (not A) various brands. To me, various brands, means various tube heights.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 2, 2014, at 10:35, rochep@... wrote:
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>
>
> Tube Depot sells them for $3.95 each NOS
> AES sells them for $4.20 (I think NOS)
> ESRCVacuumtubes sells them for $3.00 (not sure NOS or not)
> PTOP sells them for $3.25 NOS
>
> paul
>
>

19772. RE: [DrakeRadio] Re: Just How Many?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 16:15:32 UTC
From: Doug Coffman
Topic: 19757 Message: 19772

Paul,

Stuff happens. I bought four of them one time, NOS Lifetime Radio Shack. The boxes said 6JB6 but low and behold the boxes were mislabeled and they were 6BJ6. Right size boxes, as the BJ version is much smaller.

Doug

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of rochep@...
Sent: Wednesday, April 2, 2014 12:05 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: Just How Many?

i am dyslexic.
Anybody need any NOS 6BJ6 tubes? I'll sell them cheap! I just bought four of them.

haha, sucks to be me.

paul

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

19773. RE: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-03-31 23:14:51 UTC
From: Doug Coffman
Topic: 19601 Message: 19773

Garey,

I am using the Kits and Parts Wide band amplifier connected to the DDS. It has winding instructions for 50 ohms and 200 ohms for the output. I have tried both iterations and still have a significant sensitivity issue; I have a loss of 2 to 4 S – Units, most significant on 10M.

The wideband amp output is 3.8 Vpp on 160, 80 and 40M. 3Vpp on 20M, 2Vpp on 15M and 1.5Vpp on 10M. These voltages are unloaded or with the amp not connected to the receiver. Connected to the receiver I get about a 1 volt drop on all bands but 10M drops a little farther. I am using low capacitance cable to connect he amp to the injection jack.

Any suggestions here?

Thanks for your time,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Wednesday, March 26, 2014 3:41 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: FS-4 injection level?

OK! You win! :-)

Shoulda been p-p...

You could try a 50 ohm termination and a coupling capacitor. A ferrite bifilar matching transformer would be more efficient.

Garey - K4OAH

Glen Allen, VA

On Mar 26, 2014, at 3:10 PM, "Doug Coffman" <dcoffman@... <mailto:dcoffman@...> > wrote:

Garey,

I cut a snipped from a previous thread; it’s of no consequence but this is why I was chasing 2Vrms, LOL! If 2 Vpp will take care of it then I wonder why my sensitivity is low on 10M. The output waveform is clean and undistorted, I wonder if the impedance mismatch may be to blame here?

Thanks so much for your help!

Doug – N9XTF

Quoting Garey Barrell

Doug -

I haven't tried it, but the first step would be to determine the input impedance of the INJ jacks on the R-4C and T-4XC.
Then a simple transformer will probably suffice. You need about 1.5 - 2 VRMS at the PreMixer frequency (7.3 - 35.6 MHz)
into either INJ input.

You might take a look at the PHSNA project Yahoo group for ideas. We used either a 2N5109 buffer or an MCI ERA-3+ MMIC
to get about +10 dBm into 50 ohms (0.7 VRMS) from a 9850/51. You need about +20 dBm _into 50 ohms_. I suspect the
input impedance is considerably higher, allowing use of a simple transformer to get the higher voltage.

Really not nearly as simple a project as it looks, to do it right. Do you REALLY need to know your frequency to better
than +/- 100 kHz?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
< www.k4oah.com <http://www.k4oah.com> >

From: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
[mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Wednesday, March 26, 2014 12:35 PM
To: DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Re: FS-4 injection level?

Doug -

One of us has made a mistake! The INJ signal level is 2-3 V peak-to-peak, not RMS. The impedance is 100-200 ohms.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

Doug Coffman wrote:
>
>
> Lee,
>
> Right now, I am using the Kits and Parts design. Every design that I have come across offers
> about 20db gain.
>
> I am using the raw output of the N3ZI DDS and filtering at the output of the buffered

amp.
> Its output is in the order of 250mV P-P. I calculated a 3db frequency of 40MHz and am using a
> 5 pole filter. I may have to increase the range of the filter to get the output up at the
> higher frequencies. Remember that I am injecting the operating frequency plus the IF frequency
> so I’m in the 33MHz range for 10M.
>
> Have you had any more success with your setup and if so what voltages and setup are you getting?
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com> [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Lee Hiers
> *Sent:* Wednesday, March 26, 2014 11:38 AM
> *To:* DrakeRadio@yahoogroups.com <mailto:DrakeRadio@yahoogroups.com>
> *Subject:* Re: [DrakeRadio] Re: FS-4 injection level?
>
> On Wed, Mar 26, 2014 at 11:36 AM, Doug Coffman <dcoffman@... <mailto:dcoffman@pdswireless.com%20%0b>
> <mailto:dcoffman@...>> wrote:
>
> I am still experimenting with the buffered amp to try and get a little more out of it on
> the higher frequencies without distorting the signal.
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> What are you using for a buffer?
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> 73 de Lee
>
> --
>
> Lee Hiers, AA4GA
>
> www.aa4ga.com <http://www.aa4ga.com> <http://www.aa4ga.com>
>
> Submit your QRP DXCC totals to www.qrpdx.com <http://www.qrpdx.com> <http://www.qrpdx.com>!
>
>
> --
> PDSWireless
> Quick and Simple Internet Access
> Get it now! <http://www.pdswireless.com>
>
>
>

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Quick and Simple Internet Access
Get it now! <http://www.pdswireless.com>

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19774. Re: [DrakeRadio] Re: FS-4 injection level?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-02 23:06:15 UTC
From: Paul Pollock
Topic: 19601 Message: 19774

To Doug N9XTF,

Occurs to me, you could wind several output coils for each band, and set them up in parallel, for proper output. Since they are all working on the same signals, the crosstalk is zero, and since we are working for the proper impedance per band, the out of band coils will by higher impedance and won't produce other kinds of gain problems.

Think of it as a stub-tuned mulit-band antenna <grin>!

-Paul Pollock
KD7BWB

On Mar 31, 2014, at 4:14 PM, Doug Coffman <dcoffman@...> wrote:

>
> Garey,
>
>
>
> I am using the Kits and Parts Wide band amplifier connected to the DDS. It has winding instructions for 50 ohms and 200 ohms for the output. I have tried both iterations and still have a significant sensitivity issue; I have a loss of 2 to 4 S – Units, most significant on 10M.
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>
> Any suggestions here?
>
>
>
> Thanks for your time,
>
>
>
> Doug – N9XTF
>
>
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> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey

Barrell
> Sent: Wednesday, March 26, 2014 3:41 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Re: FS-4 injection level?
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>
>
>
>
> OK! You win! :-)
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>
> Shoulda been p-p...
>
>
>
> You could try a 50 ohm termination and a coupling capacitor. A ferrite bifilar matching transformer would be more efficient.
>
>
> Garey - K4OAH
>
> Glen Allen, VA
>
>
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> Garey,
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>
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> Thanks so much for your help!
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> Doug – N9XTF
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> Quoting Garey Barrell
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> You might take a look at the PHSNA project Yahoo group for ideas. We used either a 2N5109 buffer or an MCI ERA-3+ MMIC
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> Really not nearly as simple a project as it looks, to do it right. Do you REALLY need to know your frequency to better
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> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> < www.k4oah.com>
>
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> > Doug – N9XTF
> >
> > *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] *On Behalf Of *Lee Hiers
> > *Sent:* Wednesday, March 26, 2014 11:38 AM
> > *To:* DrakeRadio@yahoogroups.com
> > *Subject:* Re: [DrakeRadio] Re: FS-4 injection level?
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> > <mailto:dcoffman@...>> wrote:
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> > I am still experimenting with the buffered amp to try and get a little more out of it on
> > the higher frequencies without distorting the signal.
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> > What are you using for a buffer?
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> > 73 de Lee
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> >
> > Lee Hiers, AA4GA
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> > www.aa4ga.com <http://www.aa4ga.com>
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19775. Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-03 04:16:40 UTC
From: <kw6gchas@...>
Topic: 19775 Message: 19775

Bought a Darke 2CQ from eBay. The Q multiplier is not working; as advertised

Switches and cables checked okay.
Tube (12AX7) checks good; substituted 2 others with no change.
Coils were checked with ohm meter for continuity and okay
Resistors within tolerance.
Have not check caps, but am starting to think of just replacing ones near L2.

Symptoms when trying to perform alignment per Drake instructions in 2C manual: Cannot get any peak from adjusting L2, but can get a slight peak when adjusting L1.

Nothing much left to do but start replacing disc capacitors.

Does anyone have any suggestions? Any assistance would be greatly appreciated.

19776. Re: Just How Many

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-03 04:54:50 UTC
From: lane denune
Topic: 19776 Message: 19776

Thanks for all the input guys! Yes, I'm a stickler for the Re-Dip and have a fan top mounted over the PA and drawing warm air out. Generally I run the T4X at 100w output on CW and the air being exhausted is warm, not hot.The current is over 200 but under 275 key down. I have also found that adjusting the RF Tune for max signal into a digital receiver gets that important first tuning adjustment right on. 73 from Lane de n8aft

19777. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-03 14:13:22 UTC
From: Garey Barrell
Topic: 19775 Message: 19777

Yeah, hold on there. With the troubleshooting you have done, it probably IS working. 'Shot-gunning' is never a good idea!

The problem with a Q-Multiplier is that it is SHARP. Once you've done it a time or two, it's
easy, but ...

Essentially it's a regenerative 'receiver', and the controls have to be set carefully. The adjustments also interact.

I assume you have also checked the DC voltages per the chart in the manual. If not, do that first.

THEN..... READ the first sentence in the Operating Instructions for the Q-Multiplier on Page 28
of the 2-C receiver manual.

Now, follow the directions very carefully, exactly, step by step. If you come to a problem in
the directions, post the symptoms.

I would be willing to bet that it IS working, and we just have to get the operator working as
well!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

kw6gchas@... wrote:
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> Coils were checked with ohm meter for continuity and okay
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> peak from adjusting L2, but can get a slight peak when adjusting L1.
>

> Nothing much left to do but start replacing disc capacitors.
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> Does anyone have any suggestions? Any assistance would be greatly appreciated.
>

19778. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 01:35:08 UTC
From: Charles Ahlgren
Topic: 19775 Message: 19778

Thanks Gary

How much of a peak should I see when adjusting L2?

Does the crystal calibrator signal need to be zero nested exactly for this to work? I would not think so.

I will start by confirming the voltages on the 12AX7 and them carefully follow the directions - slow and methodical.

Thanks for your help

On Thursday, April 3, 2014, Garey Barrell <k4oah@...m> wrote:

>
>
> Yeah, hold on there. With the troubleshooting you have done, it probably
> IS working.
> 'Shot-gunning' is never a good idea!
>
> The problem with a Q-Multiplier is that it is SHARP. Once you've done it a
> time or two, it's
> easy, but ...
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> set carefully. The
> adjustments also interact.
>
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> manual. If not, do that first.
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> Q-Multiplier on Page 28
> of the 2-C receiver manual.
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> Now, follow the directions very carefully, exactly, step by step. If you
> come to a problem in
> the directions, post the symptoms.
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> 73, Garey - K4OAH
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> appreciated.
> >
>
>
>

--
73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

19779. Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 02:45:10 UTC
From: Joe Burch
Topic: 19779 Message: 19779

Hi folks - just a quick question.

I need to replace the power cord on my PS-7 because the lid who previously owned it cut off the ground connector. To do the job properly, the P/C board on the rear panel should be removed. It's apparently fastened to the rear panel by the power switches themselves.

Has anyone tried to remove this board? It looks to me as though the screws holding the switches have been broken off so that the metal power selector (with the cut outs) will fit flush on the rear panel. I find it hard to believe that the Drake Company would manufacture a product like this.

Any thoughts?

73's - Joe - K3JLS

19780. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 03:51:35 UTC
From: M K
Topic: 19779 Message: 19780

Wouldn't it be easier to just install a 3-prong plug on the existing cord?

On Thu, Apr 3, 2014 at 10:45 PM, Joe Burch <k3jls@...> wrote:

>
>
> Hi folks - just a quick question.
>
> I need to replace the power cord on my PS-7 because the lid who previously
> owned it cut off the ground connector. To do the job properly, the P/C
> board on the rear panel should be removed. It's apparently fastened to the
> rear panel by the power switches themselves.
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> Has anyone tried to remove this board? It looks to me as though the
> screws holding the switches have been broken off so that the metal power
> selector (with the cut outs) will fit flush on the rear panel. I find it
> hard to believe that the Drake Company would manufacture a product like
> this.
>
> Any thoughts?
>
> 73's - Joe - K3JLS
>
>
>

19781. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 04:45:47 UTC
From: Jim Shorney
Topic: 19779 Message: 19781

I believe those are either PEM studs or rivets, it's been a while since I looked. The PC board was likely a cost saving measure to reduce assembly time and labor over the early hand-wired version.

I agree with the other comment, go to the hardware store and buy a heavy-duty plug and repair the existing cord.

73

-Jim
NU0C

On Thu, 3 Apr 2014 19:45:10 -0700 (PDT), Joe Burch wrote:

>Hi folks - just a quick question.
>
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>
>Any thoughts?
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>73's - Joe - K3JLS

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19782. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 05:03:22 UTC
From: Charles Ahlgren
Topic: 19775 Message: 19782

Gary:

You were right!

After I got home from work, I carefully reviewed all the measurements and they were right. So I took your advice and VERY carefully went through the alignment step by step. Took a little doing, but I got it right and the thing does work...

Thank you so much for your help....Much appreciated!!

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Thu, Apr 3, 2014 at 7:13 AM, Garey Barrell <k4oah@...> wrote:

>
>
> Yeah, hold on there. With the troubleshooting you have done, it probably
> IS working.
> 'Shot-gunning' is never a good idea!
>
> The problem with a Q-Multiplier is that it is SHARP. Once you've done it a
> time or two, it's
> easy, but ...
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> adjustments also interact.
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> I assume you have also checked the DC voltages per the chart in the
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> > Does anyone have any suggestions? Any assistance would be greatly
> appreciated.
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19783. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 02:15:02 UTC
From: wes bolin
Topic: 19775 Message: 19783

Hi Charles
I have had 2AQ and 2BQ, and their controls were best learned with a calibrator signal. I peaked the signal on the S-meter, then tried each control separately and in combination to peak and null the signal. As said earlier, the adjustments are critical and do interact a lot. Once I got the hang of it, I could get a deep null and also got good peaking. I used the notch(null) on SSB mostly and the improved selectivity(peak) on CW. It can be frustrating until you get it sorted out, but its worth it.
Wes

On Thu, Apr 3, 2014 at 8:35 PM, Charles Ahlgren <kw6gchas@...> wrote:

>
>
> Thanks Gary
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> How much of a peak should I see when adjusting L2?
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>> IS working.
>> 'Shot-gunning' is never a good idea!
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>> The problem with a Q-Multiplier is that it is SHARP. Once you've done it
>> a time or two, it's
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>> the directions, post the symptoms.
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>> 73, Garey - K4OAH
>> Glen Allen, VA
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
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>> > peak from adjusting L2, but can get a slight peak when adjusting L1.
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>> > Nothing much left to do but start replacing disc capacitors.
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>> > Does anyone have any suggestions? Any assistance would be greatly
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> 73's de Charles, KW6G (formerly - WB6IYM)
> http://wb6iym.googlepages.com/coffeemugnet
>
>

>
>
>

19784. RE: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 11:05:40 UTC
From: Stephen Finch
Topic: 19779 Message: 19784

He probably cut off the ground pin to eliminate a ground loop that was putting a hum on the audio and microphone output. If you ground the set up through another path, then don□t worry about the missing ground pin on the power supply.

Steve Finch
AIØW
Technical Coordinator - North Florida Section

ai0w@...

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Jim Shorney
Sent: Friday, April 04, 2014 12:46 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

I believe those are either PEM studs or rivets, it's been a while since I looked. The PC board was likely a cost saving measure to reduce assembly time
and labor over the early hand-wired version.

I agree with the other comment, go to the hardware store and buy a heavy-duty
plug and repair the existing cord.

73

-Jim
NU0C

On Thu, 3 Apr 2014 19:45:10 -0700 (PDT), Joe Burch wrote:

>Hi folks - just a quick question.
>
>I need to replace the power cord on my PS-7 because the lid who previously owned it cut off the ground connector. To do the job properly, the P/C board on the rear panel should be removed. It's apparently fastened to the rear panel by the power switches themselves.
>
>Has anyone tried to remove this board? It looks to me as though the screws holding the switches have been broken off so that the metal power selector (with the cut outs) will fit flush on the rear panel. I find it hard to believe that the Drake Company would manufacture a product like this.
>
>Any thoughts?
>

>73's - Joe - K3JLS

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

19785. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 13:30:33 UTC
From: Charles Ahlgren
Topic: 19775 Message: 19785

Wes

The 2C manual suggests the same thing - use the calibrator signal. I did that for the alignment procedure.

Tested the unit listening to 40 meter CW. Seems to work rather well, but you do need to practice a bit to get the hang of it.

With that said, the really confusing thing is the rather broad peak you get when adjusting the L2 coil during alignment. This is on the notch part of the circuit; actually looks like input from the receiver. Does anyone know if that is normal? There is really not much to go wrong with this circuit; only a few components.

Thanks for your thoughts and advice.

On Thursday, April 3, 2014, wes bolin <k5apl41@...> wrote:

>
>
> -Hi Charles
> I have had 2AQ and 2BQ, and their controls were best learned with a
> calibrator signal. I peaked the signal on the S-meter, then
> tried each control separately and in combination to peak and null the
> signal. As said earlier, the adjustments are critical and do
> interact a lot. Once I got the hang of it, I could get a deep null and
> also got good peaking. I used the notch(null) on SSB mostly and
> the improved selectivity(peak) on CW. It can be frustrating until you get
> it sorted out, but its worth it.
> Wes
>
>
> On Thu, Apr 3, 2014 at 8:35 PM, Charles Ahlgren
<kw6gchas@...<javascript:_e(%7B%7D,'cvml','kw6gchas@...');>
> > wrote:
>
>>
>>
>> Thanks Gary
>>
>> How much of a peak should I see when adjusting L2?
>>
>> Does the crystal calibrator signal need to be zero nested exactly for
>> this to work? I would not think so.
>>
>> I will start by confirming the voltages on the 12AX7 and them carefully

>> follow the directions - slow and methodical.
>>
>> Thanks for your help
>>
>> On Thursday, April 3, 2014, Garey Barrell
<k4oah@...<javascript:_e(%7B%7D,'cvml','k4oah@...');>>
>> wrote:
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>>> Yeah, hold on there. With the troubleshooting you have done, it probably
>>> IS working.
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>>> of the 2-C receiver manual.
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>>> Now, follow the directions very carefully, exactly, step by step. If you
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>>> I would be willing to bet that it IS working, and we just have to get
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http://wb6iym.googlepages.com/coffeemugnet

19786. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 13:34:23 UTC
From: Garey Barrell
Topic: 19775 Message: 19786

Charles -

Great!! The Q-Multiplier is one of the simplest, most effective devices for radio communication
EVER! :-) It makes use of 'regeneration', a technique invented by Major Edwin Armstrong exactly 100 years ago. The regenerative receiver can, with ONE vacuum tube, compete favorably
in sensitivity with today's $10k super receivers!

The basic theory is that if you take an amplifier, and sample a small amount of it's output signal and feed it back to the input, the same amplifier can amplify it again. And again, and
again. The precise amount of feedback is very critical, as obviously if you have TOO much, you
have an oscillator. Beside increasing the GAIN tremendously, this increase in gain peaks at the
resonant frequency, resulting in a narrower overall bandwidth or increase in selectivity. Further information is available at the Yahoo group 'REGENRX', another list I moderate.

The Q-Multiplier works by converting one of the IF stages of a receiver into a regenerative amplifier, GREATLY increasing its selectivity. Conversely, it can employ the same technique by
inverting the signal and causing a very deep 'hole' or null at the resonant frequency.

So your Q-Multiplier employs one of the first inventions that not only enabled radio communication, (just after the crystal set,) but is still useful 100 years later......

Not too shabby.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Charles Ahlgren wrote:
>
>
> Gary:
>
> You were right!
>
> After I got home from work, I carefully reviewed all the measurements and they were right. So
> I took your advice and VERY carefully went through the alignment step by step. Took a little

> doing, but I got it right and the thing does work...
>
> Thank you so much for your help....Much appreciated!!
>
> 73's de Charles, KW6G (formerly - WB6IYM)
> http://wb6iym.googlepages.com/coffeemugnet
>
>
> On Thu, Apr 3, 2014 at 7:13 AM, Garey Barrell <k4oah@...
> <mailto:k4oah@...>> wrote:
>
> Yeah, hold on there. With the troubleshooting you have done, it probably IS working.
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19787. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 14:29:03 UTC
From: Garey Barrell
Topic: 19775 Message: 19787

The adjustment of L2 is to compensate for the loading of the coax to the IF Amp in the receiver. Depending upon the selectivity of the IF, it will typically be quite broad. If you
are crazy, (like me,) you'll tune L2 for the same S-Meter reading on either side of resonance
and then count the turns to set it to the middle. Normal people set it somewhere near the middle and let it go!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Charles Ahlgren wrote:
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> wrong with this circuit; only a few components.
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> Thanks for your thoughts and advice.
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> > Does anyone have any suggestions? Any assistance would be greatly appreciated.
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>

19788. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 15:10:40 UTC
From: <k3jls@...>
Topic: 19779 Message: 19788

I thought of that, but I wanted to keep the radio stock looking.

19789. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 15:48:45 UTC
From: <k3jls@...>
Topic: 19779 Message: 19789

Hi Jim,
Thanks for taking then time to reply. It looks like they are PEM studs with the heads of the screws sheared off so that the plate over the switches that set the input voltage will fit flush. I'm surprised that Drake did this as there could be a later need to replace one of those switches or capacitors - unlikely - yes, but possible. Whoever designed the thing should have his knuckles rapped with his slide rule.

Joe

19790. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 16:00:25 UTC
From: Garey Barrell
Topic: 19779 Message: 19790

Joe -

I think your punishment is a little excessive.

While perhaps not the ultimate in design goals, consider that 99.9% of those switches will NEVER
be used, AND if they are, it will occur with zero power applied.

May not be all that egregious, all things considered.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> those switches or capacitors - unlikely - yes, but possible. Whoever designed the thing
> should have his knuckles rapped with his slide rule.
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>

19791. How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 16:44:13 UTC
From: Steve Wedge
Topic: 19791 Message: 19791

I'm working on an early R-4 that has a seriously out-of-alignment notch filter. Most of the rest of this set was pretty much bang-on, aside from this notch and the PBT slugs. The PBT was a piece of cake.

Not so, this notch. Usually, I get a good enough response from the notch where I don't even have to think of adjusting T-8. However, in this case, I have to do it. The adjustment is at the front, about 1/2" behind the front chassis! Is there an adjustment through the rubber ring in the back? If so, which tool (hex, straight, other?) I don't want to damage the slug.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

19792. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 16:55:56 UTC
From: Garey Barrell
Topic: 19791 Message: 19792

Steve -

Highly unlikely it needs adjustment. More likely one or both of the 3000 pF caps C67, 68.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Steve Wedge wrote:
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> ring in the back? If so, which tool (hex, straight, other?) I don't want to damage the slug.
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19793. RE: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 17:23:24 UTC
From: Stephen Finch
Topic: 19779 Message: 19793

Then it’s a question of how you ground your equipment.

teve Finch
AIØW
Technical Coordinator - North Florida Section

ai0w@...

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@...m] On Behalf Of k3jls@...
Sent: Friday, April 04, 2014 11:11 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

I thought of that, but I wanted to keep the radio stock looking.

19794. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 17:29:53 UTC
From: Steve Wedge
Topic: 19791 Message: 19794

Yeah, I was looking at it, and if it was the slug position, you should be able to find a null - it would just be at a different setting. This one gives a very shallow null, and adjusting the pot does little.

Back to the soldering iron - after I get done with all the real estate that just came up!

73,

Steve Wedge, W1ES/4

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From: Garey Barrell
Sent: Friday, April 04, 2014 12:55 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Steve -

Highly unlikely it needs adjustment. More likely one or both of the 3000 pF caps C67, 68.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Steve Wedge wrote:
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> the front, about 1/2" behind the front chassis! Is there an adjustment through the rubber
> ring in the back? If so, which tool (hex, straight, other?) I don't want to damage the slug.
>

19795. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 18:13:58 UTC
From: Steve Wedge
Topic: 19791 Message: 19795

Both SM's measure about 4000 pf, in-circuit. The coupling caps C60 and C69 seem a bit off, but those should not be critical.

I guess we could still have a bad SM cap in there. R14 is measuring about 11.5k, so that shouldn't really be an issue, since the pot could take up that tolerance.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve Wedge
Sent: Friday, April 04, 2014 1:29 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yeah, I was looking at it, and if it was the slug position, you should be able to find a null - it would just be at a different setting. This one gives a very shallow null, and adjusting the pot does little.

Back to the soldering iron - after I get done with all the real estate that just came up!

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From: Garey Barrell
Sent: Friday, April 04, 2014 12:55 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Steve -

Highly unlikely it needs adjustment. More likely one or both of the 3000 pF caps C67, 68.

73, Garey - K4OAH
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slug.
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19796. Re: [DrakeRadio] Replacing the Drake PS-7 AC Power Cord

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 18:28:40 UTC
From: Jim Shorney
Topic: 19779 Message: 19796

I tend to agree. I've had my own issues with PEM stuff, but that's another story. They are common enough, and have a place in the world. It's not at all uncommon at all in the industry for parts that are imagined to have a very low failure rate to be mounted in ways that, while not especially easy to replace, are more convenient and/or cost effective from a manufacturing standpoint. I will admit that I had a bit of a "WTF?" moment when I first saw that, but I imagine the repair procedure would be to carefully de-solder each of the switches and pull the board away.

Drake probably thought that the plug on the end of the cord would likely fail before the switches. I'm sure it would be perfectly OK with Bob Drake to replace the plug. How do you think folks that do run the PS-7 on 240 volts / overseas power deal with it? I'm sure that not everyone runs out and gets an adapter cord for USA 3-prong.... :)

73

-Jim
NU0C

On Fri, 04 Apr 2014 12:00:25 -0400, Garey Barrell wrote:

>Joe -
>
>I think your punishment is a little excessive.
>
>While perhaps not the ultimate in design goals, consider that 99.9% of those switches will NEVER
>be used, AND if they are, it will occur with zero power applied.
>
>May not be all that egregious, all things considered.
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>k3jls@... wrote:
>>
>>
>> Hi Jim,
>>
>> Thanks for taking then time to reply. It looks like they are PEM studs with the heads of the

>> screws sheared off so that the plate over the switches that set the input voltage will fit
>> flush. I'm surprised that Drake did this as there could be a later need to replace one of
>> those switches or capacitors - unlikely - yes, but possible. Whoever designed the thing
>> should have his knuckles rapped with his slide rule.
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19797. Re: [DrakeRadio] Help with Drake 2CQ Q-Multiplier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 18:29:59 UTC
From: Jim Shorney
Topic: 19775 Message: 19797

Yeah, crazy like a fox.... :D

73

-Jim

On Fri, 04 Apr 2014 10:29:03 -0400, Garey Barrell wrote:

>The adjustment of L2 is to compensate for the loading of the coax to the IF Amp in the
>receiver. Depending upon the selectivity of the IF, it will typically be quite broad. If
you
>are crazy, (like me,) you'll tune L2 for the same S-Meter reading on either side of
resonance
>and then count the turns to set it to the middle. Normal people set it somewhere near the
>middle and let it go!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Charles Ahlgren wrote:
>>
>>
>> Wes
>>
>> The 2C manual suggests the same thing - use the calibrator signal. I did that for the
>> alignment procedure.
>>
>> Tested the unit listening to 40 meter CW. Seems to work rather well, but you do need to
>> practice a bit to get the hang of it.
>>
>> With that said, the really confusing thing is the rather broad peak you get when
adjusting
>> the L2 coil during alignment. This is on the notch part of the circuit; actually looks
like
>> input from the receiver. Does anyone know if that is normal? There is really not much to
go
>> wrong with this circuit; only a few components.
>>
>> Thanks for your thoughts and advice.
>>
>> On Thursday, April 3, 2014, wes bolin <k5apl41@... <mailto:k5apl41@...>> wrote:
>>

>> -Hi Charles
>> I have had 2AQ and 2BQ, and their controls were best learned with a calibrator signal. I
>> peaked the signal on the S-meter, then
>> tried each control separately and in combination to peak and null the signal. As said
>> earlier, the adjustments are critical and do
>> interact a lot. Once I got the hang of it, I could get a deep null and also got good
>> peaking. I used the notch(null) on SSB mostly and
>> the improved selectivity(peak) on CW. It can be frustrating until you get it sorted out,
>> but its worth it.
>> Wes
>>
>>
>> On Thu, Apr 3, 2014 at 8:35 PM, Charles Ahlgren <kw6gchas@...
>> <javascript:_e(%7B%7D,'cvml','kw6gchas@...');>> wrote:
>>
>>
>>
>> Thanks Gary
>>
>> How much of a peak should I see when adjusting L2?
>>
>> Does the crystal calibrator signal need to be zero nested exactly for this to work? I
>> would not think so.
>>
>> I will start by confirming the voltages on the 12AX7 and them carefully follow the
>> directions - slow and methodical.
>>
>> Thanks for your help
>>
>> On Thursday, April 3, 2014, Garey Barrell <k4oah@...
>> <javascript:_e(%7B%7D,'cvml','k4oah@...');>> wrote:
>>
>> Yeah, hold on there. With the troubleshooting you have done, it probably IS working.
>> 'Shot-gunning' is never a good idea!
>>
>> The problem with a Q-Multiplier is that it is SHARP. Once you've done it a time or
>> two, it's
>> easy, but ...
>>
>> Essentially it's a regenerative 'receiver', and the controls have to be set
>> carefully. The
>> adjustments also interact.
>>
>> I assume you have also checked the DC voltages per the chart in the manual. If
>> not, do that first.
>>
>> THEN..... READ the first sentence in the Operating Instructions for the
>> Q-Multiplier on Page 28
>> of the 2-C receiver manual.
>>

>> Now, follow the directions very carefully, exactly, step by step. If you come to a
>> problem in
>> the directions, post the symptoms.
>>
>> I would be willing to bet that it IS working, and we just have to get the operator
>> working as
>> well!! :-)
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com <http://www.k4oah.com>>
>>
>> kw6gchas@... wrote:
>> >
>> >
>> > Bought a Darke 2CQ from eBay. The Q multiplier is not working; as advertised
>> >
>> > Switches and cables checked okay.
>> > Tube (12AX7) checks good; substituted 2 others with no change.
>> > Coils were checked with ohm meter for continuity and okay
>> > Resistors within tolerance.
>> > Have not check caps, but am starting to think of just replacing ones near L2.
>> >
>> > Symptoms when trying to perform alignment per Drake instructions in 2C manual:
>> Cannot get any
>> > peak from adjusting L2, but can get a slight peak when adjusting L1.
>> >
>> > Nothing much left to do but start replacing disc capacitors.
>> >
>> > Does anyone have any suggestions? Any assistance would be greatly appreciated.
>> >
>>
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

19798. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-04 22:10:54 UTC
From: GRANT YOUNGMAN
Topic: 19791 Message: 19798

Just FYI … your situation may be different since you don't see much of a notch anywhere.

I'm working on an R-4B. The notch nulls fine, but at about 10:30 instead of 12:00 straight up, the result of which is that it won't notch across the entire passband. I did check these caps, and found one that was at the extreme of the specified tolerance (3160 pf). So I replaced them both, but nothing changed materially. The 5% caps I put in measured about 3050 pf each.

I do plan to put my sweep gen on the passband to see exactly where the notch thinks it is over the weekend (and also take a look at the IF overall because after alignment per the book LSB is clean and USB is muddy). But I have a feeling that I'm going to be fiddling with that springy tail to bring the notch into alignment.

I presume the spring turns like a screw in the small rubber (?) bushing that attaches it to the mechanical mechanism, and I'll bet it won't want to turn easily. Need to find really really small fingers :)

Grant NQ5T

On Apr 4, 2014, at 1:13 PM, Steve Wedge <w1es1982@...> wrote:

>
> Both SM's measure about 4000 pf, in-circuit. The coupling caps C60 and C69 seem a bit off, but those should not be critical.
>
> I guess we could still have a bad SM cap in there. R14 is measuring about 11.5k, so that shouldn't really be an issue, since the pot could take up that tolerance.
>
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> A

19799. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 01:28:29 UTC
From: Steve Wedge
Topic: 19791 Message: 19799

Looking at the circuit, it appears to be completely passive, so changing tubes shouldn't affect the Q of the thing.

I do remember having a hell of a time with a PBT that wound up being the 0.1 uf metal film cap at the output of the filter.

Even though my 10k resistor is a bit high, I'm figuring the pot has more than enough range to compensate for it. So, I'm left with: the coil, the SM caps, the resistors or the coupling caps.

Perhaps I'll get the time next week to dig into this.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: GRANT YOUNGMAN
Sent: Friday, April 04, 2014 6:10 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Just FYI … your situation may be different since you don’t see much of a notch anywhere.

I’m working on an R-4B. The notch nulls fine, but at about 10:30 instead of 12:00 straight up, the result of which is that it won’t notch across the entire passband. I did check these caps, and found one that was at the extreme of the specified tolerance (3160 pf). So I replaced them both, but nothing changed materially. The 5% caps I put in measured about 3050 pf each.

I do plan to put my sweep gen on the passband to see exactly where the notch thinks it is over the weekend (and also take a look at the IF overall because after alignment per the book LSB is clean and USB is muddy). But I have a feeling that I’m going to be fiddling with that springy tail to bring the notch into alignment.

I presume the spring turns like a screw in the small rubber (?) bushing that attaches it to the mechanical mechanism, and I’ll bet it won’t want to turn easily. Need to find really really small fingers :)

Grant NQ5T

On Apr 4, 2014, at 1:13 PM, Steve Wedge <w1es1982@...> wrote:

Both SM's measure about 4000 pf, in-circuit. The coupling caps C60 and C69 seem a bit off, but those should not be critical.

I guess we could still have a bad SM cap in there. R14 is measuring about 11.5k, so that shouldn't really be an issue, since the pot could take up that tolerance.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

A

19800. AC4 literally humming

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 01:33:38 UTC
From: <rochep@...>
Topic: 19800 Message: 19800

I just did the Heathkitshop AC4 upgrade; the AC4 was working "fine" before but I had $70 burning a hole in my pocket. hihi
All seems fine, voltages are fine. But I notice when I switch to TUNE or key the T4XC on CW I hear some "hum", almost like a vibration in the PS. Doesn't happen in "standby" SSB. This is not hum picked up on a RX, but literally the sound. I made sure transformer was tight to chassis and new PC board/standoffs are tight, that's not it.
I am not TOO concerned, but is this normal? I don't remember it happening BEFORE the upgrade, but maybe at age 51 I am beginning to forget what I remembered from last week!

paul

19801. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 01:58:47 UTC
From: Garey Barrell
Topic: 19791 Message: 19801

Grant -

You sure the Passband Tuner, the IF and the BFO are all correct?? Knob on right?? I've never
seen a Notch coil that needed to be changed from the factory position. I can't think of anything that would cause it to shift, unless someone has been in there before you!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GRANT YOUNGMAN wrote:
>
>
> Just FYI ? your situation may be different since you don?t see much of a notch anywhere.
>
> I?m working on an R-4B. The notch nulls fine, but at about 10:30 instead of 12:00 straight
> up, the result of which is that it won?t notch across the entire passband. I did check these
> caps, and found one that was at the extreme of the specified tolerance (3160 pf). So I
> replaced them both, but nothing changed materially. The 5% caps I put in measured about 3050
> pf each.
>
> I do plan to put my sweep gen on the passband to see exactly where the notch thinks it is over
> the weekend (and also take a look at the IF overall because after alignment per the book LSB
> is clean and USB is muddy). But I have a feeling that I?m going to be fiddling with that
> springy tail to bring the notch into alignment.
>
> I presume the spring turns like a screw in the small rubber (?) bushing that attaches it to
> the mechanical mechanism, and I?ll bet it won?t want to turn easily. Need to find really
> really small fingers :)
>
> Grant NQ5T
>
>
> On Apr 4, 2014, at 1:13 PM, Steve Wedge <w1es1982@... <mailto:w1es1982@...>>
> wrote:
>

>>
>> Both SM's measure about 4000 pf, in-circuit. The coupling caps C60 and C69 seem a bit
off,
>> but those should not be critical.
>> I guess we could still have a bad SM cap in there. R14 is measuring about 11.5k, so that
>> shouldn't really be an issue, since the pot could take up that tolerance.
>>

19802. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 03:09:32 UTC
From: GRANT YOUNGMAN
Topic: 19791 Message: 19802

Yes, I’m sure. I’ve been through it twice, and other than the notch it aligns just like it’s supposed to. A third time won’t hurt :)

I’ve had other R-4Bs, but never had one with the notch so far out of whack. That’s why I plan to put a sweep generator on the whole IF, and see if anything looks squirly. The PB tuner “sounds” ok, but it will be instructive to look at the actual passband. It could be that someone else messed with it in the past, but it didn’t look molested in any way.

If I find anything particularly interesting, I’ll post the result.

Grant NQ5T

On Apr 4, 2014, at 8:58 PM, Garey Barrell <k4oah@...> wrote:

> Grant -
>
> You sure the Passband Tuner, the IF and the BFO are all correct?? Knob on right?? I've never
> seen a Notch coil that needed to be changed from the factory position. I can't think of
> anything that would cause it to shift, unless someone has been in there before you!!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> GRANT YOUNGMAN wrote:
>>
>>
>> Just FYI … your situation may be different since you don’t see much of a notch anywhere.
>>
>> I’m working on an R-4B. The notch nulls fine, but at about 10:30 instead of 12:00 straight
>> up, the result of which is that it won’t notch across the entire passband. I did check these
>> caps, and found one that was at the extreme of the specified tolerance (3160 pf). So I
>> replaced them both, but nothing changed materially. The 5% caps I put in measured about 3050
>> pf each.
>>

19803. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 03:26:47 UTC
From: Richard Knoppow
Topic: 19791 Message: 19803

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, April 04, 2014 6:28 PM
Subject: Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Looking at the circuit, it appears to be completely passive, so changing tubes shouldn't affect the Q of the thing.

I do remember having a hell of a time with a PBT that wound up being the 0.1 uf metal film cap at the output of the filter.

Even though my 10k resistor is a bit high, I'm figuring the pot has more than enough range to compensate for it. So, I'm left with: the coil, the SM caps, the resistors or the coupling caps.

Perhaps I'll get the time next week to dig into this.

73,

Steve Wedge, W1ES/4

I had to look. It seems to me that I adjusted this when I first got my R4B. If you look down the back of the coil with a dental mirror you will see a socket. It seems to fit a 1/16th inch Allen wrench. I was able to reach in with a ball head hex wrench. I did not try to move the core because its in the right place. If you have a plastic adjuster the right size I think it would be less likely to fracture the core than a metal wrench. I also did not investigate if the wrench affected the tuning but a metal wrench might. I don't remember the details. I don't know if your receiver is the same as this one.
The one problem I have with the notch filter is that the wire or rope of whatever is the right term for it that moves the core tends to rub on the inside of the case so it makes the notch difficult to adjust. One day I will get the cover off and see what can be done. When its adjusted right the notch filter is _very_ good.

--
Richard Knoppow
Los Angeles
WB6KBL

dickburk@...

19804. transmitter section of TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 04:57:46 UTC
From: John King
Topic: 19804 Message: 19804

I have a TR3 with a transmitter section problem. The receiver section works well but the transmitter does not. Voltages all are as they should be. All tubes specific to the transmitter have been substituted without change in non performance.

Keying up the transmitter does not produce any signal in an adjacent receiver tuned to the same frequency. Problem is as if a critical oscillator or mixer in the transmitter section is not working. Keying up the transmitter produces 50 ma. idling current in the 12JB6 finals without drive to the finals because there is no drive getting to the finals.

Has anyone experienced this problem with the transmit section of a TR3 or TR4 when the receive section was working properly. If so, please share your findings regarding the transmit section problem, Thanks and 73, John, K5PGW

19805. Re: [DrakeRadio] AC4 literally humming

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 06:37:45 UTC
From: Richard Knoppow
Topic: 19800 Message: 19805

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, April 04, 2014 6:33 PM
Subject: [DrakeRadio] AC4 literally humming

>I just did the Heathkitshop AC4 upgrade; the AC4 was
>working "fine" before but I had $70 burning a hole in my
>pocket. hihi
> All seems fine, voltages are fine. But I notice when I
> switch to TUNE or key the T4XC on CW I hear some "hum",
> almost like a vibration in the PS. Doesn't happen in
> "standby" SSB. This is not hum picked up on a RX, but
> literally the sound. I made sure transformer was tight to
> chassis and new PC board/standoffs are tight, that's not
> it.
> I am not TOO concerned, but is this normal? I don't
> remember it happening BEFORE the upgrade, but maybe at age
> 51 I am beginning to forget what I remembered from last
> week!
>
> paul

I have two AC-4 supplies with the Heathkit shop kit in
them. Neither vibrates. The usual cause for this is loose
transformer laminations. Its possible the bolts compressing
the laminations were loosened in the process of mounting the
circuit board, they should be clamped quite tightly. You can
try removing the board and tightening up the nuts on the
transformer. I also suggest making a simple stethoscope
using a wooden dowel. Similar listening sticks are used by
auto mechanics and were common in the telephone plant to
listen for misbehaving relays. Even a fresh (long) pencil
will do. Use it to localize the hum. The reason it doesn't
happen in standby is that the current drawn from the supply
is less so the magnetic fields in the transformer are less.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19806. Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 10:20:48 UTC
From: g4jss@tiscali.co.uk
Topic: 19806 Message: 19806

----Original Message----
From: g4jss@...
Date: 05/04/2014 10:18
To: <drakeradio@yahoogroups.com>
Subj: R-4B

Hello
I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?

Vic

G4JSS

19807. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 10:37:43 UTC
From: Mike Millen
Topic: 19806 Message: 19807

On 05/04/2014 11:20, g4jss@... wrote:
> Hello
>
> I am watching an R4B on Ebay (261442251035). The seller doesn't know
> if it works or otherwise because he hasn't got a charging power
> station. I've never had a 4B so I don't know what he means by '
> charging power station '. Can anybody put me wise, please?
>
> Vic
>
> G4JSS
>
>
Hi Vic,

That makes no sense... I don't think they know anything about the set.

It has an internal mains-powered supply, & the transformer can be wired for 120 or 240v.

There is an "accessories" power socket on the rear panel which supplies 6.3vac & 150v DC... they may be mistaking that for the power input.

Incidentally, I have an R-4B in excellent condition that I don't use much these days. I paid over £300 for it on Ebay a few years ago & I don't really want to lose money on it. Having said that, irrational though it might be, I'd swap it for an absolutely mint AR-88, D or LF. It has to be in perfect condition, mind. :-)

73,
Mike
M0MLM

19808. Re: [DrakeRadio] How the heck do you adjust the notch transformer?!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 13:27:12 UTC
From: Steve Wedge
Topic: 19791 Message: 19808

50 kHz oscillator was zero beat with signal generator and verified with a Fluke counter that I know is good. The oscillator only needed a tiny adjustment. The PBT carriage was way off but is now correct.

The notch nulls in approximately the right place but is only about 10-20 dB.

I've never seen SM caps go bad this way. Symptoms suggest that there's some leakage somewhere. I have to order some caps (I wish I had kept my parts bins when I moved!).

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Apr 4, 2014, at 9:58 PM, Garey Barrell <k4oah@...> wrote:
>
> Grant -
>
> You sure the Passband Tuner, the IF and the BFO are all correct?? Knob on right?? I've never
> seen a Notch coil that needed to be changed from the factory position. I can't think of
> anything that would cause it to shift, unless someone has been in there before you!!
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> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> GRANT YOUNGMAN wrote:
>>
>>
>> Just FYI … your situation may be different since you don’t see much of a notch anywhere.
>>
>> I’m working on an R-4B. The notch nulls fine, but at about 10:30 instead of 12:00 straight
>> up, the result of which is that it won’t notch across the entire passband. I did check these
>> caps, and found one that was at the extreme of the specified tolerance (3160 pf). So I
>> replaced them both, but nothing changed materially. The 5% caps I put in measured about 3050
>> pf each.
>>
>> I do plan to put my sweep gen on the passband to see exactly where the notch thinks it is over
>> the weekend (and also take a look at the IF overall because after alignment per the book

LSB
>> is clean and USB is muddy). But I have a feeling that I’m going to be fiddling with that
>> springy tail to bring the notch into alignment.
>>
>> I presume the spring turns like a screw in the small rubber (?) bushing that attaches it
to
>> the mechanical mechanism, and I’ll bet it won’t want to turn easily. Need to find really
>> really small fingers :)
>>
>> Grant NQ5T
>>
>>
>> On Apr 4, 2014, at 1:13 PM, Steve Wedge <w1es1982@... <mailto:w1es1982@...>>
>> wrote:
>>
>>>
>>> Both SM's measure about 4000 pf, in-circuit. The coupling caps C60 and C69 seem a bit
off,
>>> but those should not be critical.
>>> I guess we could still have a bad SM cap in there. R14 is measuring about 11.5k, so
that
>>> shouldn't really be an issue, since the pot could take up that tolerance.
>>>
>
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> ------------------------------------
>
> Yahoo Groups Links
>
>
>

19809. Re: [DrakeRadio] transmitter section of TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 13:50:00 UTC
From: Al Parker
Topic: 19804 Message: 19809

Good AM John,
Sorry I didn't get back to you earlier. I've just hunted down my TR-3 manual & info, that was one of the last things I've worked on here, but that was a cupla mo.s ago.
Looks like V-4, mixer, is only used for xmt, that might be a place to look. Look at pg 24 in the manual for a block diagram, and read the paragraph above that for some further thoughts. It might be possible that V4 cathode isn't getting grounded in xmt.
Somewhere I have a marked up block diagram that shows what freq.s should be seen at each point, but of course I can't find that now. V4 gets the IF in plus the output of V-1 mixer, to give the xmt freq.
Hope this helps a bit.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/5/2014 12:57 AM, John King wrote:
> I have a TR3 with a transmitter section problem. The receiver section
> works well but the transmitter does not. Voltages all are as they should
> be. All tubes specific to the transmitter have been substituted without
> change in non performance.
>
> Keying up the transmitter does not produce any signal in an adjacent
> receiver tuned to the same frequency. Problem is as if a critical
> oscillator or mixer in the transmitter section is not working. Keying up
> the transmitter produces 50 ma. idling current in the 12JB6 finals
> without drive to the finals because there is no drive getting to the finals.
>
> Has anyone experienced this problem with the transmit section of a TR3
> or TR4 when the receive section was working properly. If so, please
> share your findings regarding the transmit section problem, Thanks and
> 73, John, K5PGW
>
>

19810. RE: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 14:04:56 UTC
From: Bill Jackson
Topic: 19806 Message: 19810

Vic,

It appears the seller does not know much about what he is selling. It looks to me like he did a copy and paste from another ad or one of his offerings, perhaps for an HT that would need a drop in charger to test.

Also, the age of this radio is more likely in the 1968-1969 range than 1976, based upon the partial serial number I see in one of his photos.

Overall, it looks well used, but restorable for sure. The average selling price for an R-4B according to the WB4HFN web site is $328.

See http://wb4hfn.com/DRAKE/DrakeSalePriceHistory.htm)

Good Luck!

73 de Bill, K9RZ

19811. AC-4 component value

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 14:10:54 UTC
From: Robert Logan
Topic: 19811 Message: 19811

Does anyone happen to know what the watt rating is for R6 in the AC-4? The pot sets the bias for the (in my case) T-4XC.

I've seen some rated at 5 watts, some at 2 watts, some even less in other circuits. Thanks for the help. Bob, NZ5A

Sent from my iPhone

19812. Re: [DrakeRadio] transmitter section of TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 14:28:46 UTC
From: Garey Barrell
Topic: 19804 Message: 19812

John -

V4 is the likely culprit, it is the transmit mixer, and of course V6 is important! The PA set
to idle confirms ONLY the PA is working, and it should be 0.1A, NOT 50 mA. Having the idle set
to 50 mA would make the PA harder to drive, and needs to be corrected before you get too far
into the weeds!

The fact that the receiver works confirms that all the oscillators are working properly, and
eliminates about 80% of the circuitry in the radio.

Since you've swapped the tubes, including V4 and V5, I would suspect the keying of those stages. There is a 'XMIT CATH' that must be grounded by the relay to enable the transmitter.
Pin 7 of V4 and V15, along with Pin 1 of V6 should be ~ 2-3V in transmit. If they are 100+ V,
the relay or associated wiring is suspect.

If these voltages are correct, then you'll have to investigate the operation of V4 more closely. Start by checking the DC voltages from the chart in the manual. If you start on 80M,
you should have 9 MHz and 5 MHz at the Grid of V4, and 4 MHz on the Plate.

By this point you've probably found the problem. If not, report back with results of these tests.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John King wrote:
> I have a TR3 with a transmitter section problem. The receiver section works well but the transmitter does not. Voltages all are as they should be. All tubes specific to the transmitter have been substituted without change in non performance.
>
> Keying up the transmitter does not produce any signal in an adjacent receiver tuned to the same frequency. Problem is as if a critical oscillator or mixer in the transmitter section is not working. Keying up the transmitter produces 50 ma. idling current in the 12JB6 finals without drive to the finals because there is no drive getting to the finals.
>
> Has anyone experienced this problem with the transmit section of a TR3 or TR4 when the

receive section was working properly. If so, please share your findings regarding the transmit section problem, Thanks and 73, John, K5PGW
>
>

19813. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 14:38:01 UTC
From: Garey Barrell
Topic: 19806 Message: 19813

Vic -

My guess is they have no idea what they're talking about! They probably are looking at the ACCY
POWER jack on the back and are afraid to plug it in using the attached power cord!!. It's a version 2, and looks to be in decent shape. It's probably plug and play, but most anyone who
would want it will know that so it's probably going to bring a decent price.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

g4jss@... wrote:
>
> ----Original Message----
> From: g4jss@...
> Date: 05/04/2014 10:18
> To: <drakeradio@yahoogroups.com>
> Subj: R-4B
>
> Hello
> I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
> station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?
>
> Vic
>
> G4JSS
>

19814. Re: [DrakeRadio] AC-4 component value

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 14:47:15 UTC
From: Garey Barrell
Topic: 19811 Message: 19814

Bob -

I think the original was probably a regular carbon pot, typically rated at 2W. It never sees
more than about 150 mW dissipation, but because of the catastrophic results of it's failure,
I'd prefer a wirewound, probably 4W. Not for the dissipation, but because carbon pots don't do
well with DC applied to them.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Does anyone happen to know what the watt rating is for R6 in the AC-4? The pot sets the bias for the (in my case) T-4XC.
>
> I've seen some rated at 5 watts, some at 2 watts, some even less in other circuits. Thanks for the help. Bob, NZ5A
>
>

19815. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 21:58:46 UTC
From: Steve Wedge
Topic: 19806 Message: 19815

It means he hasn't a clue as to how the thing works :). Bid low and bid often...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 5, 2014, at 6:20 AM, "g4jss@..." <g4jss@...> wrote:
>
>
>
> ----Original Message----
> From: g4jss@...
> Date: 05/04/2014 10:18
> To: <drakeradio@yahoogroups.com>
> Subj: R-4B
>
> Hello
> I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
> station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?
>
> Vic
>
> G4JSS
>
>

19816. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 22:26:21 UTC
From: William Houghton
Topic: 19806 Message: 19816

I wonder if they thought that the "ACCY POWER" socket was for some charger?

From: Steve Wedge <w1es1982@triad.rr.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, April 5, 2014 2:58 PM
Subject: Re: [DrakeRadio] Fw: R-4B

It means he hasn't a clue as to how the thing works :). Bid low and bid often...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

On Apr 5, 2014, at 6:20 AM, "g4jss@tiscali.co.uk" <g4jss@...> wrote:

>
>
>----Original Message----
>From: g4jss@...
>Date: 05/04/2014 10:18
>To: <drakeradio@yahoogroups.com>
>Subj: R-4B
>
>Hello
>I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
>station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?
>
>Vic
>
>G4JSS
>
>

19817. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 22:31:25 UTC
From: David E. Rudd, CET WCM
Topic: 19806 Message: 19817

Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.

Good luck and lurk in the shadows, get it cheap and save your money.

David

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@...> wrote:
>
> It means he hasn't a clue as to how the thing works :). Bid low and bid often...
>
> Steve Wedge, W1ES/4
>
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
>> On Apr 5, 2014, at 6:20 AM, "g4jss@..." <g4jss@...> wrote:
>>
>>
>>
>>
>> ----Original Message----
>> From: g4jss@...
>> Date: 05/04/2014 10:18
>> To: <drakeradio@yahoogroups.com>
>> Subj: R-4B
>>
>> Hello
>> I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
>> station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?
>>
>> Vic
>>
>> G4JSS
>
>

19818. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 23:17:49 UTC
From: Dan Galligan
Topic: 19806 Message: 19818

I must concur. When I sell, bidding early, and often, IS what I want buyers to do. But, it's the last thing I want to do, as a buyer.
Bid early, and often, is the mantra, of eBay sellers! And, an enemy to buyers wallets.

And, if someone is looking for a B Line, or C Line, contact me off list, and we can discuss the possible impending sale of my two sets of Drake Twins.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 5, 2014, at 17:31, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
>
>
> Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.
>
> Good luck and lurk in the shadows, get it cheap and save your money.
>
> David
>
> Sent from my iPhone AI4JI
>
>> On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@triad.rr.com> wrote:
>>
>> It means he hasn't a clue as to how the thing works :). Bid low and bid often...
>>
>> Steve Wedge, W1ES/4
>>
>>
>> Sent from my iPhone; please excuse any typographical malaprops.
>>

>>> On Apr 5, 2014, at 6:20 AM, "g4jss@..." <g4jss@...> wrote:
>>>
>>>
>>>
>>>
>>> ----Original Message----
>>> From: g4jss@...
>>> Date: 05/04/2014 10:18
>>> To: <drakeradio@yahoogroups.com>
>>> Subj: R-4B
>>>
>>> Hello
>>> I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
>>> station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?
>>>
>>> Vic
>>>
>>> G4JSS
>
>
>

19819. T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 23:31:54 UTC
From: <n1ohn@...>
Topic: 19819 Message: 19819

Hello all.

I just received my TX4B from EBay today and it needs a new Choke Plate (PC-1,2) any one know were I can find one lol?

Thanks!
Dave

19820. Re: [DrakeRadio] T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-05 23:58:26 UTC
From: David E. Rudd, CET WCM
Topic: 19819 Message: 19820

Hi Dave,

Give me a day or two to check my inventory.

This is for the group as well...
I have acquired a dear friend of mine's estate. I have a huge lot of spare parts, a couple cabinets and 8 boxes full of repair parts and tubes. I also have several complete sets. Here are the sets that I currently have:

Drake ...
Qty 5 - TR-4 xcvr
Qty 4 - TR-4C xcvr
Qty 4 - TR-4Cw xcvr
Qty 4 - T-4XC xmtr
Qty 1 - R-4B rcvr
Qty 2 - R-4C rcvr with upgrades
Qty 1 - R-2C rcvr
Qty 1 - L-4B with P/S
Qty 2 - L-4B without P/S
Qty 2 - RV-4 remote VFO
Qty 2 - RV-4C remote VFO
Qty 4 - MS-4 speaker

Swan 700cx xcvr with P/S

National 109 rcvr and matching speaker

Heathkit DX-40 with matching VF-1 VFO

Heathkit DX-40

Lots of Sure desk mics.

I have cleaned and aligned a TR-4Cw with the matching speaker and power supply and sold it to a friend of mine at work. I'm a communications systems engineer for Motorola in Atlanta. I maintain the big public safety systems and 911 centers.

Anyhow, he is very pleased with the rig. These all look nearly new. Little or no signs of wear.

All I can tell you is that my friend and his father had these up in NY. I'm fairly sure they had an electronics business up there and probably sold Ham Radio gear.

I will be offering this equipment for sale, and spare / repair parts as well. I remember seeing like 20 new relays, a drawer full of the red front lamps and retaining clips, blue plexiglass, pots, filters, circuit boards, knobs, feet, upgrade kits, tons of stuff!

If anyone in the group is looking for specific items, let me know what you need and I'll see if I have it or not.

Thanks for having a look.

David E. Rudd, CET WCM
de AI4JI

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 19:31, <n1ohn@...> wrote:
>
> Hello all.
>
>
> I just received my TX4B from EBay today and it needs a new Choke Plate (PC-1,2) any one know were I can find one lol?
>
> Thanks!
> Dave
>

19821. Re: [DrakeRadio] T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 00:04:14 UTC
From: n1ohn@yahoo.com
Topic: 19819 Message: 19821

Great!! Thanks Dave let me know what if anything you come up with :)

Dave

Sent from Yahoo Mail on Android

19822. Re: [DrakeRadio] T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 00:23:53 UTC
From: WB6TNF
Topic: 19819 Message: 19822

Dave, I am in need of the round plastic frequency dial for a TR-3 (same as a TR-4).
Jim - WB6TNF

On Saturday, April 5, 2014 4:58 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:

Hi Dave,

  Give me a day or two to check my inventory.

  This is for the group as well...
I have acquired a dear friend of mine's estate. I have a huge lot of spare parts, a couple cabinets and 8 boxes full of repair parts and tubes. I also have several complete sets. Here are the sets that I currently have:

Drake ...
Qty 5 - TR-4 xcvr
Qty 4 - TR-4C xcvr
Qty 4 - TR-4Cw xcvr
Qty 4 - T-4XC xmtr
Qty 1 - R-4B rcvr
Qty 2 - R-4C rcvr with upgrades
Qty 1 - R-2C rcvr
Qty 1 - L-4B with P/S
Qty 2 - L-4B without P/S
Qty 2 - RV-4 remote VFO
Qty 2 - RV-4C remote VFO
Qty 4 - MS-4 speaker

Swan 700cx xcvr with P/S

National 109 rcvr and matching speaker

Heathkit DX-40 with matching VF-1 VFO

Heathkit DX-40

Lots of Sure desk mics.

I have cleaned and aligned a TR-4Cw with the matching speaker and power supply and sold it to a friend of mine at work. I'm a communications systems engineer for Motorola in Atlanta. I maintain the big public safety systems and 911 centers.

Anyhow, he is very pleased with the rig. These all look nearly new. Little or no signs of wear.

All I can tell you is that my friend and his father had these up in NY. I'm fairly sure they had an electronics business up there and probably sold Ham Radio gear.

I will be offering this equipment for sale, and spare / repair parts as well. I remember seeing like 20 new relays, a drawer full of the red front lamps and retaining clips, blue plexiglass, pots, filters, circuit boards, knobs, feet, upgrade kits, tons of stuff!

If anyone in the group is looking for specific items, let me know what you need and I'll see if I have it or not.

Thanks for having a look.

David E. Rudd, CET WCM
de AI4JI

Sent from my iPhone AI4JI

On Apr 5, 2014, at 19:31, <n1ohn@...> wrote:

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>
>
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>
>
>Thanks!
>Dave

19823. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 00:51:49 UTC
From: Steve Wedge
Topic: 19806 Message: 19823

I guess my joke got lost somewhere.

Sigh.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: David E. Rudd, CET WCM
Sent: Saturday, April 05, 2014 6:31 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Fw: R-4B

Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.

Good luck and lurk in the shadows, get it cheap and save your money.

David

Sent from my iPhone AI4JI

On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@...> wrote:

It means he hasn't a clue as to how the thing works :). Bid low and bid often...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

On Apr 5, 2014, at 6:20 AM, "g4jss@tiscali.co.uk" <g4jss@...> wrote:

----Original Message----
From: g4jss@...
Date: 05/04/2014 10:18
To: <drakeradio@yahoogroups.com>
Subj: R-4B

Hello
I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?

Vic

G4JSS

19824. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 01:02:21 UTC
From: Dan Galligan
Topic: 19806 Message: 19824

Sorry Steve. My feeble brain didn't catch the levity. Old Timer moment!

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 5, 2014, at 19:51, Steve Wedge <w1es1982@...> wrote:
>
>
>
> I guess my joke got lost somewhere.
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> Sigh.
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: David E. Rudd, CET WCM
> Sent: Saturday, April 05, 2014 6:31 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Fw: R-4B
>
> Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.
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>> On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@...> wrote:
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>>>
>>> Vic
>>>
>>> G4JSS
>>>
>>>
>
>
>

19825. Re: [DrakeRadio] AC-4 component value

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 01:06:49 UTC
From: Robert Logan
Topic: 19811 Message: 19825

Thank you, Gary, for usual sage advice. I'll chech at Fry's tomorrow but sounds like wire wound might be someone more like Mouser. Will report back source.

Thanks again, friend. Bob NZ5A

Sent from my iPhone

On Apr 5, 2014, at 9:47 AM, Garey Barrell <k4oah@...> wrote:

Bob -

I think the original was probably a regular carbon pot, typically rated at 2W. It never sees
more than about 150 mW dissipation, but because of the catastrophic results of it's failure,
I'd prefer a wirewound, probably 4W. Not for the dissipation, but because carbon pots don't do
well with DC applied to them.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
> Does anyone happen to know what the watt rating is for R6 in the AC-4? The pot sets the bias for the (in my case) T-4XC.
>
> I've seen some rated at 5 watts, some at 2 watts, some even less in other circuits. Thanks for the help. Bob, NZ5A
>
>

19826. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 02:24:30 UTC
From: Steve Wedge
Topic: 19806 Message: 19826

Actually, I've been successful as a buyer using both strategies.

The secret to not paying too much is to stick with your final offer and not get caught up.

I've had times when I've bid low but not too low, and have won a real bargain. That R-4 I had last year falls into this category. Got it, with the mint MS-4, for $100 plus about $25 shipping. The fuse was blown.

I also pick off items at the last minute. Won an R-4C for pretty cheap using that strategy. I look for the lousy marketing - the folks who can't adequately describe what they've got, but I can tell from the pics that the stuff has potential. Sometimes I score, big-time. Sometimes, I spend hours fixing something so that I can break even. Usually, I'm ahead. You need an "eye" and a sense of value.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Dan Galligan
Sent: Saturday, April 05, 2014 9:02 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Fw: R-4B

Sorry Steve. My feeble brain didn't catch the levity. Old Timer moment!

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
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Sent from my iPad.

On Apr 5, 2014, at 19:51, Steve Wedge <w1es1982@...> wrote:

I guess my joke got lost somewhere.

Sigh.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: David E. Rudd, CET WCM
Sent: Saturday, April 05, 2014 6:31 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Fw: R-4B

Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.

Good luck and lurk in the shadows, get it cheap and save your money.

David

Sent from my iPhone AI4JI

On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@triad.rr.com> wrote:

It means he hasn't a clue as to how the thing works :). Bid low and bid often...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

On Apr 5, 2014, at 6:20 AM, "g4jss@..." <g4jss@...> wrote:

----Original Message----
From: g4jss@...
Date: 05/04/2014 10:18
To: <drakeradio@yahoogroups.com>
Subj: R-4B

Hello
I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?

Vic

G4JSS

19827. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 03:26:42 UTC
From: David E. Rudd, CET WCM
Topic: 19806 Message: 19827

Excellent point Steve, the stuff listed in odd places.

I was browsing Motorola commercial gear one day and found a set of movie prop swords from the Kill Bill movie with a certificate of authenticity and Uma Therman pictured with them. I got that set of 3 samurai swords, shipped, with the stand and certificate for $50. I don't collect stuff like that at all, but what the heck. Fake Hitori Hanzo swords that smell like Uma Therman.. I threw $50 at them ;)

Dave

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 22:24, "Steve Wedge" <w1es1982@...> wrote:
>
> Actually, I've been successful as a buyer using both strategies.
>
> The secret to not paying too much is to stick with your final offer and not get caught up.
>
> I've had times when I've bid low but not too low, and have won a real bargain. That R-4 I had last year falls into this category. Got it, with the mint MS-4, for $100 plus about $25 shipping. The fuse was blown.
>
> I also pick off items at the last minute. Won an R-4C for pretty cheap using that strategy. I look for the lousy marketing - the folks who can't adequately describe what they've got, but I can tell from the pics that the stuff has potential. Sometimes I score, big-time. Sometimes, I spend hours fixing something so that I can break even. Usually, I'm ahead. You need an "eye" and a sense of value.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: Dan Galligan
> Sent: Saturday, April 05, 2014 9:02 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Fw: R-4B
>
>
> Sorry Steve. My feeble brain didn't catch the levity. Old Timer moment!
>

> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
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> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
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>> From: David E. Rudd, CET WCM
>> Sent: Saturday, April 05, 2014 6:31 PM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] Fw: R-4B
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>> Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.
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>>>> Vic
>>>>
>>>> G4JSS
>
>

19828. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 03:34:46 UTC
From: Barry
Topic: 19806 Message: 19828

Well, I hope they weren't autographed by Uma "Therman". :-)

Barry - N4BUQ

Sent from my iPad

> On Apr 5, 2014, at 10:26 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
>
>
> Excellent point Steve, the stuff listed in odd places.
>
> I was browsing Motorola commercial gear one day and found a set of movie prop swords from the Kill Bill movie with a certificate of authenticity and Uma Therman pictured with them. I got that set of 3 samurai swords, shipped, with the stand and certificate for $50. I don't collect stuff like that at all, but what the heck. Fake Hitori Hanzo swords that smell like Uma Therman.. I threw $50 at them ;)
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>>> From: David E. Rudd, CET WCM
>>> Sent: Saturday, April 05, 2014 6:31 PM
>>> To: DrakeRadio@yahoogroups.com
>>> Subject: Re: [DrakeRadio] Fw: R-4B
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>>>>> From: g4jss@...
>>>>> Date: 05/04/2014 10:18
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>>>>> Vic
>>>>>
>>>>> G4JSS
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>
>

19829. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 03:37:34 UTC
From: David E. Rudd, CET WCM
Topic: 19806 Message: 19829

No.. And it's 0-dark:30, I have strep and am full of cough syrup, excuse me if my spelling is off!

D

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 23:34, Barry <n4buq@...> wrote:
>
> Well, I hope they weren't autographed by Uma "Therman". :-)
>
> Barry - N4BUQ
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> Sent from my iPad
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>> Excellent point Steve, the stuff listed in odd places.
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>>>> To: DrakeRadio@yahoogroups.com
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>>>>>> Vic
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>>>>>> G4JSS
>
>

19830. Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 04:36:14 UTC
From: David E. Rudd, CET WCM
Topic: 19830 Message: 19830

Greetings to everyone on the list.

I acquired an estate full of Drake gear and parts. Here is the list. If you need something in the R-4 or TR-4 series and it's not on here, please feel free to ask; I may be able to dig around and find it for you.

Qty 5 TR-4 xcvr
Qty 4 TR-4C xcvr
Qty 4 TR-4Cw xcvr
Qty 4 T-4XC xmtr
Qty 1 R-4B rcvr
Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
Qty 1 R-2C rcvr
Qty 2 L-4B amplifiers without P/S
Qty 2 RV-4 remote VFO
Qty 2 RV-4C remote VFO
Qty 4 MS-4 speaker / cabinet

1 Drake TR-4 for parts

Qty 8 relays R10-E1-Y4-V2.5K 48VDC
Qty 4 RIT plugs for TR4Cw
Qty 12 L7 lamps
Qty 2 .0007MFD 2500WVDC caps
Qty 12 Meter / Dial lamps
Qty 12 5 amp slo-blo power supply fuses
Qty 3 Resistors 2,200,000 ohm labeled "Drake 9MHz resistors"
Qty 2 35.500 MHz crystals
Qty 2 sheets of blue dial transparent plastic
Qty 3 sheets of white dial background plastic
Qty 4 relay retaining spring wires
Qty 12 noise blanker mounts for R4 rcvr a
Qty 9 red panel lamps "Drake -C2A" with retaining clips
Qty 12 fuse holders with caps
Qty 3 multi-value capacitor, 65-20-10/350 10/50
Qty 1 multi-value capacitor, 65/350 20/250 10/50
Various pots and switches
R4C to T4XC interconnect cables
Qty 12 Drake mic plugs
Qty 1 set Band Switch wafers for TR-4Cw
Qty 1 T4/T4X cox delay relay
Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
Qty 1 R4 Noise Blanker with cable
Qty 1 L4B filament transformer
Qty 1 TR4 series Plate Current meter
Qty 1 R4 series S-unit / DB meter

Qty 1 bezel T4/R4 meter
Qty 2 TR-4 series Plate/Current meter
Qty 5 Drake tuning dial inlays
Qty 3 T4/T4X carrier balance pots
Qty 12 TR4 series antenna fuse lamps
Qty 1 R4C RCC4 Calibrator PCB
Qty 1 R4C DC Pwr Supply PCB
Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
Various knobs, inlays and calibration skirts
Qty 1 plug in 9vdc @ 200 am transformer
Various plug in crystals
Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
Qty 10 560MFD @ 400 vdc electrolytic capacitors
Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
Qty 14 spring clips for the final tube top anode
Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
Qty 9 20K potentiometer
Qty 24 diodes 1N5408 for L4B
Qty 1 RY1 antenna relay for L4B
Qty 1 AGC pot for L4B
Qty 2 sets C43 & 44 door knob caps for L4B
Qty 2 fox sockets for L4B
Qty 3 mica insulators for L4B
Qty 1 set (2 sockets) for L4B / 3-500Z's
Qty 1 RF Plate Choke for L4B (RFC-4)
Qty 2 Parasitic choke assemblies L4B
Sherwood Engineering Kits, complete mods for R-4C, competition grade:
PD-4 (R4-C Product Detector)
MIX-4C (mixer for R-4C)
AMP-4 (R-4C audio amp)
PS-4 (R-4C power supply replacement)
Note: I found the credit card receipt in with the box of Sherwood Engineering kits, they spent over $900 on these kits to max out the performance of these receivers.
Sure desk mics
Astatic desk mics
Lots of tubes.
Various other spare parts, bits, bunches, boards and related stuff.

I don't have prices listed because I haven't had the time nor motivation to research all of this. If you are interested in something, let me know, make a reasonable offer and I'll check the values at eBay, WB4HFN, and other sources.

I appreciate serious, reasonable offers.
Ridiculous low offers will be scorned and deleted, please don't waste my time.

Thanks for your interest and I hope I have something here that can help you out.

Are there any dedicated repair guys out there that want the entire lot? I am willing to make a deal on everything here. I will also post photos if anyone is interested.

Thanks for looking.

David E. Rudd, CET WCM
de AI4JI

Sent from the iPad Air of AI4JI

19831. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 05:04:24 UTC
From: David E. Rudd, CET WCM
Topic: 19806 Message: 19831
Attachments: 1 described; binary payloads are missing from this source WARC

Here they are, on the wall in the spare bedroom:

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 23:34, Barry <n4buq@...> wrote:
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>>>>>> To: <drakeradio@yahoogroups.com>
>>>>>> Subj: R-4B
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>>>>>> Vic
>>>>>>
>>>>>> G4JSS
>
>

19832. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 12:00:37 UTC
From: Chgypsy@...
Topic: 19832 Message: 19832

Interesting that you posted a phone picture on a list that normally you have to put a pic into Yahoo.
Carl WD8NHK

In a message dated 4/6/2014 1:04:29 A.M. Eastern Daylight Time, ai4ji@... writes:

Here they are, on the wall in the spare bedroom:

Sent from my iPhone AI4JI

[Non-text portions of this message have been removed]

19833. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 12:16:36 UTC
From: Bernie
Topic: 19830 Message: 19833

David,
EBAY prices are inflated over standard hamfest prices and one has shipping to pay also. At least 30% sometimes 50% higher on EBAY!
Go into EBAY's history of sales for a particular item, make a list and average them, then take 25% off and you should be aball-park. Just saying...

Bernie in ND
WDØGMD

----- Original Message -----
From: David E. Rudd, CET WCM
To: drakeradio@yahoogroups.com
Sent: Saturday, April 05, 2014 11:36 PM
Subject: [DrakeRadio] Drake Gear and Parts

Greetings to everyone on the list.

I acquired an estate full of Drake gear and parts. Here is the list. If you need something in the R-4 or TR-4 series and it's not on here, please feel free to ask; I may be able to dig around and find it for you.

Qty 5 TR-4 xcvr
Qty 4 TR-4C xcvr
Qty 4 TR-4Cw xcvr
Qty 4 T-4XC xmtr
Qty 1 R-4B rcvr
Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
Qty 1 R-2C rcvr
Qty 2 L-4B amplifiers without P/S
Qty 2 RV-4 remote VFO
Qty 2 RV-4C remote VFO
Qty 4 MS-4 speaker / cabinet

1 Drake TR-4 for parts

Qty 8 relays R10-E1-Y4-V2.5K 48VDC
Qty 4 RIT plugs for TR4Cw
Qty 12 L7 lamps
Qty 2 .0007MFD 2500WVDC caps
Qty 12 Meter / Dial lamps
Qty 12 5 amp slo-blo power supply fuses
Qty 3 Resistors 2,200,000 ohm labeled "Drake 9MHz resistors"
Qty 2 35.500 MHz crystals
Qty 2 sheets of blue dial transparent plastic
Qty 3 sheets of white dial background plastic
Qty 4 relay retaining spring wires
Qty 12 noise blanker mounts for R4 rcvr a

Qty 9 red panel lamps "Drake -C2A" with retaining clips
Qty 12 fuse holders with caps
Qty 3 multi-value capacitor, 65-20-10/350 10/50
Qty 1 multi-value capacitor, 65/350 20/250 10/50
Various pots and switches
R4C to T4XC interconnect cables
Qty 12 Drake mic plugs
Qty 1 set Band Switch wafers for TR-4Cw
Qty 1 T4/T4X cox delay relay
Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
Qty 1 R4 Noise Blanker with cable
Qty 1 L4B filament transformer
Qty 1 TR4 series Plate Current meter
Qty 1 R4 series S-unit / DB meter
Qty 1 bezel T4/R4 meter
Qty 2 TR-4 series Plate/Current meter
Qty 5 Drake tuning dial inlays
Qty 3 T4/T4X carrier balance pots
Qty 12 TR4 series antenna fuse lamps
Qty 1 R4C RCC4 Calibrator PCB
Qty 1 R4C DC Pwr Supply PCB
Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
Various knobs, inlays and calibration skirts
Qty 1 plug in 9vdc @ 200 am transformer
Various plug in crystals
Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
Qty 10 560MFD @ 400 vdc electrolytic capacitors
Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
Qty 14 spring clips for the final tube top anode
Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
Qty 9 20K potentiometer
Qty 24 diodes 1N5408 for L4B
Qty 1 RY1 antenna relay for L4B
Qty 1 AGC pot for L4B
Qty 2 sets C43 & 44 door knob caps for L4B
Qty 2 fox sockets for L4B
Qty 3 mica insulators for L4B
Qty 1 set (2 sockets) for L4B / 3-500Z's
Qty 1 RF Plate Choke for L4B (RFC-4)
Qty 2 Parasitic choke assemblies L4B
Sherwood Engineering Kits, complete mods for R-4C, competition grade:
PD-4 (R4-C Product Detector)
MIX-4C (mixer for R-4C)
AMP-4 (R-4C audio amp)
PS-4 (R-4C power supply replacement)
Note: I found the credit card receipt in with the box of Sherwood Engineering kits, they spent over $900 on these kits to max out the performance of these receivers.
Sure desk mics
Astatic desk mics
Lots of tubes.

Various other spare parts, bits, bunches, boards and related stuff.

I don't have prices listed because I haven't had the time nor motivation to research all of this. If you are interested in something, let me know, make a reasonable offer and I'll check the values at eBay, WB4HFN, and other sources.

I appreciate serious, reasonable offers.
Ridiculous low offers will be scorned and deleted, please don't waste my time.

Thanks for your interest and I hope I have something here that can help you out.

Are there any dedicated repair guys out there that want the entire lot? I am willing to make a deal on everything here. I will also post photos if anyone is interested.

Thanks for looking.

David E. Rudd, CET WCM
de AI4JI

Sent from the iPad Air of AI4JI

19834. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 12:34:54 UTC
From: David E. Rudd, CET WCM
Topic: 19832 Message: 19834

Is it? (Shrug)

Sent from my iPhone AI4JI

> On Apr 6, 2014, at 8:00, Chgypsy@... wrote:
>
> Interesting that you posted a phone picture on a list that normally you
> have to put a pic into Yahoo.
> Carl WD8NHK
>
>
> In a message dated 4/6/2014 1:04:29 A.M. Eastern Daylight Time,
> ai4ji@... writes:
>
> Here they are, on the wall in the spare bedroom:
>
> Sent from my iPhone AI4JI
>
> [Non-text portions of this message have been removed]
>
>

19835. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 12:37:19 UTC
From: David E. Rudd, CET WCM
Topic: 19830 Message: 19835

Hi Bernie in ND,

Thank you for that info, I appreciate it and will certainly look at those numbers.

David

Sent from my iPhone AI4JI

> On Apr 6, 2014, at 8:16, "Bernie" <barcand@...> wrote:
>
> David,
> EBAY prices are inflated over standard hamfest prices and one has shipping to pay also. At least 30% sometimes 50% higher on EBAY!
> Go into EBAY's history of sales for a particular item, make a list and average them, then take 25% off and you should be aball-park. Just saying...
>
> Bernie in ND
> WDØGMD
>
>
> ----- Original Message -----
> From: David E. Rudd, CET WCM
> To: drakeradio@yahoogroups.com
> Sent: Saturday, April 05, 2014 11:36 PM
> Subject: [DrakeRadio] Drake Gear and Parts
>
>
> Greetings to everyone on the list.
>
> I acquired an estate full of Drake gear and parts. Here is the list. If you need something in the R-4 or TR-4 series and it's not on here, please feel free to ask; I may be able to dig around and find it for you.
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>
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> Thanks for looking.
>
> David E. Rudd, CET WCM
> de AI4JI
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> Sent from the iPad Air of AI4JI
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>
>

19836. Re: A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 13:21:26 UTC
From: David Stinson
Topic: 19832 Message: 19836

TEST

[Non-text portions of this message have been removed]

19837. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 13:59:56 UTC
From: Steve Wedge
Topic: 19832 Message: 19837

How do you attach photos?

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Apr 6, 2014, at 8:34 AM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
> Is it? (Shrug)
>
> Sent from my iPhone AI4JI
>
>> On Apr 6, 2014, at 8:00, Chgypsy@... wrote:
>>
>>
>> Interesting that you posted a phone picture on a list that normally you
>> have to put a pic into Yahoo.
>> Carl WD8NHK
>>
>>
>> In a message dated 4/6/2014 1:04:29 A.M. Eastern Daylight Time,
>> ai4ji@... writes:
>>
>> Here they are, on the wall in the spare bedroom:
>>
>> Sent from my iPhone AI4JI
>>
>> [Non-text portions of this message have been removed]
>
>

19838. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 14:26:26 UTC
From: vacuuminded2@...
Topic: 19832 Message: 19838
Attachments: 1 described; binary payloads are missing from this source WARC

Um quite simply for me, they way you attach a photo anywhere else- in the body of the email. See:

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Apr 6, 2014, at 8:59 AM, Steve Wedge <w1es1982@triad.rr.com> wrote:

> How do you attach photos?
>
> Steve Wedge, W1ES/4
>
> Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)
>
> On Apr 6, 2014, at 8:34 AM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
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>>
>> Is it? (Shrug)
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>> Sent from my iPhone AI4JI
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>> On Apr 6, 2014, at 8:00, Chgypsy@... wrote:
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>>>
>>> [Non-text portions of this message have been removed]
>
>

19839. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 14:48:18 UTC
From: Chgypsy@...
Topic: 19832 Message: 19839

w1es1982@... writes:

How do you attach photos? Steve Wedge, W1ES/4
Well until today I would have said the only way was on our Yahoo group site. Carl WD8NHK

19840. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 15:17:11 UTC
From: David Stinson
Topic: 19832 Message: 19840

I tried doing that from here as a test and got a "removed" notice.

19841. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 15:36:32 UTC
From: Chris Farley
Topic: 19832 Message: 19841

Might have something to do with your message not originating from a "@yahoo.com" email address-- like mine does. Maybe try posting from the Yahoo group homepage?

C

_____
From: David Stinson <arc5@...>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, April 6, 2014 10:17 AM
Subject: Re: [DrakeRadio] A photo; Interesting

I tried doing that from here as a test and got a "removed" notice.

[Non-text portions of this message have been removed]

19842. R4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 15:54:00 UTC
From: g4jss@tiscali.co.uk
Topic: 5130 Message: 19842

Hello all
Thanks for input re this. The general opinion seems to be that the seller does not appear to have any knowledge of what he is selling. A
strong possibility is that he has plugged it in,it lit up and got no noise (assuming that he attached a speaker) and decided to sell it
as non working. If the R4B is the same as the R4C then he may have not shorted the muting jack on the back panel hence silence.

Just a thought.

Thank you.

Vic

G4JSS

19843. Re: [DrakeRadio] R4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 15:58:30 UTC
From: Chgypsy@...
Topic: 5130 Message: 19843

g4jss@... (mailto:g4jss@...) writes:

Hello all
Thanks for input re this. The general opinion seems to be that the seller does not appear to have any knowledge of what he is selling. Just a thought. Vic G4JSS
Vic, based on the one sentence above in re your thoughts things are possible, including a real inop. Carl WD8NHK

[Non-text portions of this message have been removed]

19844. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 16:19:51 UTC
From: Paul Kraemer
Topic: 19830 Message: 19844

Hi Bernie
I'd sure like to know where these hamfests are located. The ones I'm always hearing about where prices are unbelievably low.
Of the fests I have attended in the past several years the prices are right even with ebay as the sellers have come to use that as a blue book for prices. Realistically the price at a hamfest should be lower because the seller doesn't have to pack and ship the item and doesn't pay a fee off the top. To me those two items are worth a lot.
And, as a buyer I feel I am already paying by the very cost of being present. Time away from work, fuel costs, and in my case motel and meals because any reasonable sized fest involves more than local travel.

I like EBAY because I know that on my trip there I will find what I'm looking for at a price I am willing to pay. There is no cost to me if I don't find it this trip. And, in spite of the urban legend horror stories I have had very few unpleasant buying experiences and have found that PayPal is number one a buyers advocate. One time I won a nice MFJ analyzer at a reasonable price because the seller did not have an established history and very few bid. After several weeks of "the dog ate my homework I am sick with a horrible disease" stories about why I didn't receive my purchase because it hadn't been shipped I asked for a refund and also told my story to PayPal. I received a full refund from the "seller" AND an apology email from PayPal with a coupon in the amount of $250.00 spend anyway I wanted on Ebay. That's right! Believe it or not.

True, there are always auctions that go too high because two fools get into a contest following the bid early bid often mentality. Nothing that can be done about it except wait for the next time. I do sometimes bid a low amount early so I get email reminders about the item I am watching. I really tics me when I actually forget to go back at the end and snipe something---which is the ONLY way to win BTW.

So, long story short, I have obtained many items of value to me at very good prices based on using my eyes and gut to analyze the photos, asking a question, reading the ad copy. I DO NOT buy from people that can't even write simple text and have numerous grammar and spelling errors. Nor do I buy from those who profane me for my questions and comments. I do report them for whatever good that does.
I do snipe and I seldom inform others about a good deal I'm watching unless it is something I'm really not interested in.

My 5c worth (inflation you know)

Paul K0UYA

From: Bernie
Sent: Sunday, April 06, 2014 7:16 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Gear and Parts

David,
EBAY prices are inflated over standard hamfest prices and one has shipping to pay also. At

least 30% sometimes 50% higher on EBAY!
Go into EBAY's history of sales for a particular item, make a list and average them, then take 25% off and you should be aball-park. Just saying...

Bernie in ND
WDØGMD

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Sent from the iPad Air of AI4JI

[Non-text portions of this message have been removed]

19845. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 16:29:38 UTC
From: David E. Rudd, CET WCM
Topic: 19830 Message: 19845

Paul,

Thanks for that input. I did what Bernie suggested and the prices just seemed way too low. Funny he did that to me because he didn't even want anything on my list.

I'm the new guy to the group, and have to get used to people. I was hoping not to get used by fellow hams tho. Good thing is, I don't 'have' to sell any of this. It's been happily setting on covered shelves in my climate controlled basement. I play with a rig or two when I choose. I put the list up, hoping to help the guys out that have been looking for things. And for all of you that have responded, thank you. I'm getting to your emails in the order I've received them.

David

Sent from my iPhone AI4JI

> On Apr 6, 2014, at 12:19, "Paul Kraemer" <elespe@...> wrote:
>
> Hi Bernie
> I'd sure like to know where these hamfests are located. The ones I'm always hearing about where prices are unbelievably low.
> Of the fests I have attended in the past several years the prices are right even with ebay as the sellers have come to use that as a blue book for prices. Realistically the price at a hamfest should be lower because the seller doesn't have to pack and ship the item and doesn't pay a fee off the top. To me those two items are worth a lot.
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>
> My 5c worth (inflation you know)
>
> Paul K0UYA
>
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> Qty 4 TR-4Cw xcvr
> Qty 4 T-4XC xmtr
> Qty 1 R-4B rcvr
> Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
> Qty 1 R-2C rcvr
> Qty 2 L-4B amplifiers without P/S
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> Qty 8 relays R10-E1-Y4-V2.5K 48VDC
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> Qty 12 Meter / Dial lamps
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> Qty 3 Resistors 2,200,000 ohm labeled "Drake 9MHz resistors"
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> Qty 1 set Band Switch wafers for TR-4Cw
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> Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
> Qty 1 R4 Noise Blanker with cable
> Qty 1 L4B filament transformer
> Qty 1 TR4 series Plate Current meter
> Qty 1 R4 series S-unit / DB meter
> Qty 1 bezel T4/R4 meter
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> Qty 1 R4C RCC4 Calibrator PCB
> Qty 1 R4C DC Pwr Supply PCB
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> Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
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> Qty 24 diodes 1N5408 for L4B
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> Qty 1 AGC pot for L4B
> Qty 2 sets C43 & 44 door knob caps for L4B
> Qty 2 fox sockets for L4B

> Qty 3 mica insulators for L4B
> Qty 1 set (2 sockets) for L4B / 3-500Z's
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19846. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:10:07 UTC
From: barcand@...
Topic: 19830 Message: 19846

Paul,

The only hamfests I've attended are all in North Dakota...International Peace Garden Hamfest on the border of US & Canada, the Bismarck (state capital)hamfest which draws from South Dakota, The Fargo area hamfest, which draws from Minnesota, and a hamfest (small one) at Garrison and one in Dickinson. Judging from the Drake 2-B with 2-BQ speaker I purchased from a 2nd party, as well as an R-390-A in excellent condition, again purchased from a 2nd party, and an Icom-706-MK-II-G from yet a different party, I saved anywhere from $200.00 to $500.00 based on comparable product on EBAY. No bidding wars...no need for Paypal,(fees)or EBAY (fees), no cost of shipping...no risk of Fed Ex or UPS using it for a football or target practice. Keep in mind this is just MY opinion...no offense was intended in any manner shape or form. My hamshack is too full now, with no room for a VIKING-II...so I cannot purchase anything further be it Drake or whatever.
But I thank you for the listing of the equipment available.

Bernie in ND
WD0GMD

On Sun, April 6, 2014 11:29 am, David E. Rudd, CET WCM wrote:
> Paul,
>
> Thanks for that input. I did what Bernie suggested and the prices just
> seemed way too low. Funny he did that to me because he didn't even want
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> to your emails in the order I've received them.
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> David
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> Sent from my iPhone AI4JI
>
>> On Apr 6, 2014, at 12:19, "Paul Kraemer" <elespe@...> wrote:
>>
>> Hi Bernie
>> I'd sure like to know where these hamfests are located. The ones I'm
>> always hearing about where prices are unbelievably low.
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>> the seller doesn't have to pack and ship the item and doesn't pay a fee
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>> Paul K0UYA
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>> From: Bernie
>> Sent: Sunday, April 06, 2014 7:16 AM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] Drake Gear and Parts
>>
>> David,
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>> ----- Original Message -----
>> From: David E. Rudd, CET WCM
>> To: drakeradio@yahoogroups.com
>> Sent: Saturday, April 05, 2014 11:36 PM
>> Subject: [DrakeRadio] Drake Gear and Parts
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19847. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:11:04 UTC
From: Don Cunningham
Topic: 19830 Message: 19847

David,
I don't often post to the list, but I might make a couple of observations to use as you choose. If you don't need or even want to sell these at this time particularly, you might find it better to offer these parts (most especially the larger, harder to find items) as folks are looking for them to do repairs on this list. I bought what some would consider to be several parts as Drake sold out years ago to keep my gear in order as it gets older, and I have offered "spares" when folks ask for things I have extras of over the years and will continue to do it as I can. It helps keep these old Drakes perculating into the new century.

These proprietary parts are getting harder and harder to locate, and some of the ones you listed are definitely in that category. They aren't really needed until your L4B, etc breaks. THEN, they become valuable, not just spare parts, and the owner makes fair offers. Does that make sense??

The above is just offered as information, David, to a new member. One would have thought many of us were hoarding parts when we ordered our parts from Drake when they offered their "final sellout" in the 90's, but these stashes have kept many old rigs from either the junk pile or the hands of the ones who part them out on Ebay and other places. Personally I'd much rather hear them on the air as I did that nice C Line on 80M last night while tuning around with my old 75A4 Collins receiver. Just my opinion though and not worth much.
73 and good luck with your Drakes, David,
Don, WB5HAK

On 4/6/2014 11:29 AM, David E. Rudd, CET WCM wrote:
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This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19848. Re: [DrakeRadio] transmitter section of TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:14:55 UTC
From: John King
Topic: 19804 Message: 19848

Garey, Thanks for the information. I now have carrier from the TR3. Was a switch problem. I haven't increased the idling current by changing the bias because, due to recent surgery, I cannot get to the bias control on supply which is on a higher shelf.
I can hear carrier on an adjacent receiver now when I initiate the push to talk. The VOX is not working but the PTT is working. I have changed the 12AX7 mike preamp but have not changed the 6EV7 because I haven't located one. I can't hear audio from the microphone in the adjacent receiver, so the speech from the microphone is not going through. Seems to correlate with the non working VOX. But I do get a carrier our from the low stages of the TR3 that i can hear in the adjacent receiver, but no speech from the microphone. Sounds like progress to me. 73, John K5PGW

>

19849. Re: [DrakeRadio] Fw: R-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:27:12 UTC
From: Barry
Topic: 19806 Message: 19849

It was just the irony of the message that struck me as humorous. Apologies as I didn't mean to offend.

Barry - N4BUQ

Sent from my iPad

> On Apr 5, 2014, at 10:37 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
>
>
> No.. And it's 0-dark:30, I have strep and am full of cough syrup, excuse me if my spelling is off!
>
> D
>
> Sent from my iPhone AI4JI
>
>> On Apr 5, 2014, at 23:34, Barry <n4buq@...> wrote:
>>
>> Well, I hope they weren't autographed by Uma "Therman". :-)
>>
>> Barry - N4BUQ
>>
>> Sent from my iPad
>>
>>> On Apr 5, 2014, at 10:26 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>>>
>>> Excellent point Steve, the stuff listed in odd places.
>>>
>>> I was browsing Motorola commercial gear one day and found a set of movie prop swords from the Kill Bill movie with a certificate of authenticity and Uma Therman pictured with them. I got that set of 3 samurai swords, shipped, with the stand and certificate for $50. I don't collect stuff like that at all, but what the heck. Fake Hitori Hanzo swords that smell like Uma Therman.. I threw $50 at them ;)
>>>
>>> Dave
>>>
>>> Sent from my iPhone AI4JI
>>>
>>>> On Apr 5, 2014, at 22:24, "Steve Wedge" <w1es1982@...> wrote:
>>>>
>>>>
>>>> Actually, I've been successful as a buyer using both strategies.
>>>>
>>>> The secret to not paying too much is to stick with your final offer and not get caught

up.
>>>>
>>>> I've had times when I've bid low but not too low, and have won a real bargain. That R-4 I had last year falls into this category. Got it, with the mint MS-4, for $100 plus about $25 shipping. The fuse was blown.
>>>>
>>>> I also pick off items at the last minute. Won an R-4C for pretty cheap using that strategy. I look for the lousy marketing - the folks who can't adequately describe what they've got, but I can tell from the pics that the stuff has potential. Sometimes I score, big-time. Sometimes, I spend hours fixing something so that I can break even. Usually, I'm ahead. You need an "eye" and a sense of value.
>>>>
>>>> 73,
>>>>
>>>> Steve Wedge, W1ES/4
>>>>
>>>> Time flies like an arrow; fruit flies like a banana.
>>>>
>>>>
>>>> All my computers have my signature with various pearls of wisdom appended thereto.
>>>>
>>>> From: Dan Galligan
>>>> Sent: Saturday, April 05, 2014 9:02 PM
>>>> To: DrakeRadio@yahoogroups.com
>>>> Subject: Re: [DrakeRadio] Fw: R-4B
>>>>
>>>>
>>>> Sorry Steve. My feeble brain didn't catch the levity. Old Timer moment!
>>>>
>>>> 73,
>>>> Dan
>>>> W3RXO/W5
>>>> Evening Shade, OK
>>>> EM25no
>>>>
>>>> "If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
>>>> Samuel Adams-Patriot and Brewer
>>>>
>>>>
>>>> Sent from my iPad.
>>>>
>>>>> On Apr 5, 2014, at 19:51, Steve Wedge <w1es1982@...> wrote:
>>>>>
>>>>> I guess my joke got lost somewhere.
>>>>>
>>>>> Sigh.
>>>>>
>>>>> Steve Wedge, W1ES/4

>>>>>
>>>>> Time flies like an arrow; fruit flies like a banana.
>>>>>
>>>>>
>>>>> All my computers have my signature with various pearls of wisdom appended thereto.
>>>>>
>>>>> From: David E. Rudd, CET WCM
>>>>> Sent: Saturday, April 05, 2014 6:31 PM
>>>>> To: DrakeRadio@yahoogroups.com
>>>>> Subject: Re: [DrakeRadio] Fw: R-4B
>>>>>
>>>>>
>>>>> Don't bid at all, it only drives the price up! Wait for the last minute, fix your max bid and dump it within the last 10 seconds. No one will have a chance to up-bid you! It's called 'sniping.' My wife and I have been on eBay since it's inception in the 90's, we've countless items this way. Bidding early on and "bidding often" is ignorant and only drives the price up.
>>>>>
>>>>> Good luck and lurk in the shadows, get it cheap and save your money.
>>>>>
>>>>> David
>>>>>
>>>>> Sent from my iPhone AI4JI
>>>>>
>>>>>> On Apr 5, 2014, at 17:58, Steve Wedge <w1es1982@....com> wrote:
>>>>>>
>>>>>>
>>>>>> It means he hasn't a clue as to how the thing works :). Bid low and bid often...
>>>>>>
>>>>>> Steve Wedge, W1ES/4
>>>>>>
>>>>>>
>>>>>> Sent from my iPhone; please excuse any typographical malaprops.
>>>>>>
>>>>>>> On Apr 5, 2014, at 6:20 AM, "g4jss@tiscali.co.uk" <g4jss@...> wrote:
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>> ----Original Message----
>>>>>>> From: g4jss@...
>>>>>>> Date: 05/04/2014 10:18
>>>>>>> To: <drakeradio@yahoogroups.com>
>>>>>>> Subj: R-4B
>>>>>>>
>>>>>>> Hello
>>>>>>> I am watching an R4B on Ebay (261442251035). The seller doesn't know if it works or otherwise because he hasn't got a charging power
>>>>>>> station. I've never had a 4B so I don't know what he means by ' charging power station '. Can anybody put me wise, please?

>>>>>>>
>>>>>>> Vic
>>>>>>>
>>>>>>> G4JSS
>
>
>

[Non-text portions of this message have been removed]

19850. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:36:47 UTC
From: David E. Rudd, CET WCM
Topic: 19830 Message: 19850

Hi Don,

Thanks for the input, I appreciate it. I'm all for stashing parts, that's smart and good business.

David

Sent from my iPhone AI4JI

> On Apr 6, 2014, at 13:11, Don Cunningham <donc@...> wrote:
>
> David,
> I don't often post to the list, but I might make a couple of
> observations to use as you choose. If you don't need or even want to
> sell these at this time particularly, you might find it better to offer
> these parts (most especially the larger, harder to find items) as folks
> are looking for them to do repairs on this list. I bought what some
> would consider to be several parts as Drake sold out years ago to keep
> my gear in order as it gets older, and I have offered "spares" when
> folks ask for things I have extras of over the years and will continue
> to do it as I can. It helps keep these old Drakes perculating into the
> new century.
>
> These proprietary parts are getting harder and harder to locate, and
> some of the ones you listed are definitely in that category. They
> aren't really needed until your L4B, etc breaks. THEN, they become
> valuable, not just spare parts, and the owner makes fair offers. Does
> that make sense??
>
> The above is just offered as information, David, to a new member. One
> would have thought many of us were hoarding parts when we ordered our
> parts from Drake when they offered their "final sellout" in the 90's,
> but these stashes have kept many old rigs from either the junk pile or
> the hands of the ones who part them out on Ebay and other places.
> Personally I'd much rather hear them on the air as I did that nice C
> Line on 80M last night while tuning around with my old 75A4 Collins
> receiver. Just my opinion though and not worth much.
> 73 and good luck with your Drakes, David,
> Don, WB5HAK
>
> On 4/6/2014 11:29 AM, David E. Rudd, CET WCM wrote:
> >
> > Paul,
> >
> > Thanks for that input. I did what Bernie suggested and the prices just
> > seemed way too low. Funny he did that to me because he didn't even

> > want anything on my list.
> >
> > I'm the new guy to the group, and have to get used to people. I was
> > hoping not to get used by fellow hams tho. Good thing is, I don't
> > 'have' to sell any of this. It's been happily setting on covered
> > shelves in my climate controlled basement. I play with a rig or two
> > when I choose. I put the list up, hoping to help the guys out that
> > have been looking for things. And for all of you that have responded,
> > thank you. I'm getting to your emails in the order I've received them.
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> > David
> >
> > Sent from my iPhone AI4JI
> >
> > > On Apr 6, 2014, at 12:19, "Paul Kraemer" <elespe@lisco.com> wrote:
> > >
> > > Hi Bernie
> > > I'd sure like to know where these hamfests are located. The ones I'm
> > always hearing about where prices are unbelievably low.
> > > Of the fests I have attended in the past several years the prices
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> > doesn't pay a fee off the top. To me those two items are worth a lot.
> > > And, as a buyer I feel I am already paying by the very cost of being
> > present. Time away from work, fuel costs, and in my case motel and
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> > >
> > > I like EBAY because I know that on my trip there I will find what
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> > > True, there are always auctions that go too high because two fools
> > get into a contest following the bid early bid often mentality.
> > Nothing that can be done about it except wait for the next time. I do
> > sometimes bid a low amount early so I get email reminders about the
> > item I am watching. I really tics me when I actually forget to go back
> > at the end and snipe something---which is the ONLY way to win BTW.
> > >
> > > So, long story short, I have obtained many items of value to me at

> > very good prices based on using my eyes and gut to analyze the photos,
> > asking a question, reading the ad copy. I DO NOT buy from people that
> > can't even write simple text and have numerous grammar and spelling
> > errors. Nor do I buy from those who profane me for my questions and
> > comments. I do report them for whatever good that does.
> > > I do snipe and I seldom inform others about a good deal I'm watching
> > unless it is something I'm really not interested in.
> > >
> > > My 5c worth (inflation you know)
> > >
> > > Paul K0UYA
> > >
> > > From: Bernie
> > > Sent: Sunday, April 06, 2014 7:16 AM
> > > To: DrakeRadio@yahoogroups.com
> > > Subject: Re: [DrakeRadio] Drake Gear and Parts
> > >
> > > David,
> > > EBAY prices are inflated over standard hamfest prices and one has
> > shipping to pay also. At least 30% sometimes 50% higher on EBAY!
> > > Go into EBAY's history of sales for a particular item, make a list
> > and average them, then take 25% off and you should be aball-park. Just
> > saying...
> > >
> > > Bernie in ND
> > > WDØGMD
> > >
> > > ----- Original Message -----
> > > From: David E. Rudd, CET WCM
> > > To: drakeradio@yahoogroups.com
> > > Sent: Saturday, April 05, 2014 11:36 PM
> > > Subject: [DrakeRadio] Drake Gear and Parts
> > >
> > > Greetings to everyone on the list.
> > >
> > > I acquired an estate full of Drake gear and parts. Here is the list.
> > If you need something in the R-4 or TR-4 series and it's not on here,
> > please feel free to ask; I may be able to dig around and find it for you.
> > >
> > > Qty 5 TR-4 xcvr
> > > Qty 4 TR-4C xcvr
> > > Qty 4 TR-4Cw xcvr
> > > Qty 4 T-4XC xmtr
> > > Qty 1 R-4B rcvr
> > > Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
> > > Qty 1 R-2C rcvr
> > > Qty 2 L-4B amplifiers without P/S
> > > Qty 2 RV-4 remote VFO
> > > Qty 2 RV-4C remote VFO
> > > Qty 4 MS-4 speaker / cabinet

> > >
> > > 1 Drake TR-4 for parts
> > >
> > > Qty 8 relays R10-E1-Y4-V2.5K 48VDC
> > > Qty 4 RIT plugs for TR4Cw
> > > Qty 12 L7 lamps
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> > > Qty 12 Meter / Dial lamps
> > > Qty 12 5 amp slo-blo power supply fuses
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> > > Qty 2 35.500 MHz crystals
> > > Qty 2 sheets of blue dial transparent plastic
> > > Qty 3 sheets of white dial background plastic
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> > > Qty 12 noise blanker mounts for R4 rcvr a
> > > Qty 9 red panel lamps "Drake -C2A" with retaining clips
> > > Qty 12 fuse holders with caps
> > > Qty 3 multi-value capacitor, 65-20-10/350 10/50
> > > Qty 1 multi-value capacitor, 65/350 20/250 10/50
> > > Various pots and switches
> > > R4C to T4XC interconnect cables
> > > Qty 12 Drake mic plugs
> > > Qty 1 set Band Switch wafers for TR-4Cw
> > > Qty 1 T4/T4X cox delay relay
> > > Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
> > > Qty 1 R4 Noise Blanker with cable
> > > Qty 1 L4B filament transformer
> > > Qty 1 TR4 series Plate Current meter
> > > Qty 1 R4 series S-unit / DB meter
> > > Qty 1 bezel T4/R4 meter
> > > Qty 2 TR-4 series Plate/Current meter
> > > Qty 5 Drake tuning dial inlays
> > > Qty 3 T4/T4X carrier balance pots
> > > Qty 12 TR4 series antenna fuse lamps
> > > Qty 1 R4C RCC4 Calibrator PCB
> > > Qty 1 R4C DC Pwr Supply PCB
> > > Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
> > > Various knobs, inlays and calibration skirts
> > > Qty 1 plug in 9vdc @ 200 am transformer
> > > Various plug in crystals
> > > Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
> > > Qty 10 560MFD @ 400 vdc electrolytic capacitors
> > > Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
> > > Qty 14 spring clips for the final tube top anode
> > > Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
> > > Qty 9 20K potentiometer
> > > Qty 24 diodes 1N5408 for L4B
> > > Qty 1 RY1 antenna relay for L4B
> > > Qty 1 AGC pot for L4B
> > > Qty 2 sets C43 & 44 door knob caps for L4B

> > > Qty 2 fox sockets for L4B
> > > Qty 3 mica insulators for L4B
> > > Qty 1 set (2 sockets) for L4B / 3-500Z's
> > > Qty 1 RF Plate Choke for L4B (RFC-4)
> > > Qty 2 Parasitic choke assemblies L4B
> > > Sherwood Engineering Kits, complete mods for R-4C, competition grade:
> > > PD-4 (R4-C Product Detector)
> > > MIX-4C (mixer for R-4C)
> > > AMP-4 (R-4C audio amp)
> > > PS-4 (R-4C power supply replacement)
> > > Note: I found the credit card receipt in with the box of Sherwood
> > Engineering kits, they spent over $900 on these kits to max out the
> > performance of these receivers.
> > > Sure desk mics
> > > Astatic desk mics
> > > Lots of tubes.
> > > Various other spare parts, bits, bunches, boards and related stuff.
> > >
> > > I don't have prices listed because I haven't had the time nor
> > motivation to research all of this. If you are interested in
> > something, let me know, make a reasonable offer and I'll check the
> > values at eBay, WB4HFN, and other sources.
> > >
> > > I appreciate serious, reasonable offers.
> > > Ridiculous low offers will be scorned and deleted, please don't
> > waste my time.
> > >
> > > Thanks for your interest and I hope I have something here that can
> > help you out.
> > >
> > > Are there any dedicated repair guys out there that want the entire
> > lot? I am willing to make a deal on everything here. I will also post
> > photos if anyone is interested.
> > >
> > > Thanks for looking.
> > >
> > > David E. Rudd, CET WCM
> > > de AI4JI
> > >
> > > Sent from the iPad Air of AI4JI
> > >
> > > [Non-text portions of this message have been removed]
> > >
> > >
> >
> > [Non-text portions of this message have been removed]
> >
> >
>
> ---

> This email is free from viruses and malware because avast! Antivirus protection is active.
> http://www.avast.com
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19851. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:39:36 UTC
From: Charles Ahlgren
Topic: 19830 Message: 19851

Do you have photos of the RV4C's?

I would be interested in a mint or near mint condx one to go along with my T4XCwrit.

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Sun, Apr 6, 2014 at 10:36 AM, David E. Rudd, CET WCM <ai4ji@...>wrote:

>
>
> Hi Don,
>
> Thanks for the input, I appreciate it. I'm all for stashing parts, that's
> smart and good business.
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> > > > Qty 1 L4B filament transformer
> > > > Qty 1 TR4 series Plate Current meter
> > > > Qty 1 R4 series S-unit / DB meter
> > > > Qty 1 bezel T4/R4 meter
> > > > Qty 2 TR-4 series Plate/Current meter
> > > > Qty 5 Drake tuning dial inlays
> > > > Qty 3 T4/T4X carrier balance pots
> > > > Qty 12 TR4 series antenna fuse lamps
> > > > Qty 1 R4C RCC4 Calibrator PCB
> > > > Qty 1 R4C DC Pwr Supply PCB

> > > > Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
> > > > Various knobs, inlays and calibration skirts
> > > > Qty 1 plug in 9vdc @ 200 am transformer
> > > > Various plug in crystals
> > > > Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
> > > > Qty 10 560MFD @ 400 vdc electrolytic capacitors
> > > > Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
> > > > Qty 14 spring clips for the final tube top anode
> > > > Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
> > > > Qty 9 20K potentiometer
> > > > Qty 24 diodes 1N5408 for L4B
> > > > Qty 1 RY1 antenna relay for L4B
> > > > Qty 1 AGC pot for L4B
> > > > Qty 2 sets C43 & 44 door knob caps for L4B
> > > > Qty 2 fox sockets for L4B
> > > > Qty 3 mica insulators for L4B
> > > > Qty 1 set (2 sockets) for L4B / 3-500Z's
> > > > Qty 1 RF Plate Choke for L4B (RFC-4)
> > > > Qty 2 Parasitic choke assemblies L4B
> > > > Sherwood Engineering Kits, complete mods for R-4C, competition grade:
> > > > PD-4 (R4-C Product Detector)
> > > > MIX-4C (mixer for R-4C)
> > > > AMP-4 (R-4C audio amp)
> > > > PS-4 (R-4C power supply replacement)
> > > > Note: I found the credit card receipt in with the box of Sherwood
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> > > > Sure desk mics
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> > > > I appreciate serious, reasonable offers.
> > > > Ridiculous low offers will be scorned and deleted, please don't
> > > waste my time.
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> > > > Thanks for your interest and I hope I have something here that can
> > > help you out.
> > > >
> > > > Are there any dedicated repair guys out there that want the entire
> > > lot? I am willing to make a deal on everything here. I will also post
> > > photos if anyone is interested.
> > > >
> > > > Thanks for looking.
> > > >

> > > > David E. Rudd, CET WCM
> > > > de AI4JI
> > > >
> > > > Sent from the iPad Air of AI4JI
> > > >
> > > > [Non-text portions of this message have been removed]
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> > > [Non-text portions of this message have been removed]
> > >
> > >
> >
> > ---
> > This email is free from viruses and malware because avast! Antivirus
> protection is active.
> > http://www.avast.com
> >
> > [Non-text portions of this message have been removed]
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19852. Re: [DrakeRadio] transmitter section of TR3

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 17:46:21 UTC
From: Garey Barrell
Topic: 19804 Message: 19852

John -

OK. We'll take progress! V18 is the MIC AMP, is that the one you swapped out?

What happens if you switch to X-CW with the SIDEBAND switch in X? Increasing the XMTR GAIN and
peaking RF TUNE should result in an increase in PLATE current. If it does, be sure and dip the
PLATE control quickly.

If the PTT is working, then the 6EV7 is probably ok. Be sure the VOX GAIN is advanced, and the
ANTI-VOX is at minimum.

What test equipment do you have??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

John King wrote:
> Garey, Thanks for the information. I now have carrier from the TR3. Was a switch problem. I haven't increased the idling current by changing the bias because, due to recent surgery, I cannot get to the bias control on supply which is on a higher shelf.
> I can hear carrier on an adjacent receiver now when I initiate the push to talk. The VOX is not working but the PTT is working. I have changed the 12AX7 mike preamp but have not changed the 6EV7 because I haven't located one. I can't hear audio from the microphone in the adjacent receiver, so the speech from the microphone is not going through. Seems to correlate with the non working VOX. But I do get a carrier our from the low stages of the TR3 that i can hear in the adjacent receiver, but no speech from the microphone. Sounds like progress to me. 73, John K5PGW
>
>

19853. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 18:00:50 UTC
From: Dan Galligan
Topic: 19830 Message: 19853

David,
Bernie is a real straight shooter, and what he said is generally true. But not always. That's the problem with "general rule". It's not always going to be accurate, but will be, within the laws of average.
That said, Paul and Don, are also giving good advice, that really isn't all that contrary to what Bernie had to say. It's much a matter of perspective. If you enjoy going to hamfests, and socializing, hoping to run across something that maybe you want, and get it at a great deal. It's more pleasure, than business. But, if you need something, and take the time to go out of your way, to go to a Hamfest, and it costs you that which you otherwise would not have expended, then hamfests might not be the best way to go. eBay is convenient, and you pay for that convenience, in one way shape or form. Depending on your perspective, again.
eBay has it's cycles, to deal with, too. There are periods where the prices buyers are willing to pay, are amazingly elevated. Then there are times, where things are fairly reasonably representative of the market. RARELY, there are some good deals, to be found, there. It is "Free market economics, 101". Supply and demand, drive the prices.
If you flood the market with a truckload of similar equipment, all at once, you are only cheating yourself out of maximum value. Then again, if you are a purist, and simply want REASONABLE maximum value, and to ensure that which you are selling will go to the hands of someone who truly wants THAT piece of equipment, and will properly care for it, then, a place like this, dedicated to those who truly admire that particular item, is your best place. There a lot of butchers on eBay, who will happily disassemble a perfectly good, classic, in order to maximize their profit.
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But, Bernie's formula is a good general rule, for pricing. Simply because there are lots of eager buyers out there, who are willing to win, regardless of cost. When you can get a worldwide market, competing for the item you are selling, especially when the item is in relative low supply, the price goes up. Sometimes, exponentially.
I understand that you don't want to be taken advantage of. You certainly want to maximize your fair value, for what is being sold. eBay has it's upsides and it's downsides. We've all heard horror stories, and we've all heard about great things, happening there.
Again, using the "General Rule", folks here, in this group, will give their best advice, based on the facts they know, and how they personally interpret those facts. I've not known of an instance, where there was a voice here, in this group, truly leading someone down a rosy path to destruction. How you wish to take the information you have at your disposal, and utilize it, in your given situation, is your decision to make alone. But, there is one thing you can be assured of. If folks don't like the price you ask, one of a very few things will happen. Either it will not sell, or potential buyers will try to haggle you down (that's where knowing the market for your particular item helps a bunch), or you will get petty commentary, that does nothing to help, like criticism of your price, without an offer, to buy, at the price that individual believes is reasonable.

Personally, I trust and respect the advice of all three of these men. But, in this instance, and from my perspective, Don seems to have given the best advice. If you don't NEED to sell it, and can sit on it, as a slowly returning investment, you not only are doing a service for the Drake preservationist community, but you are also maximizing your investment return, because the value will only go up, on ALL of your listed items, over the coming months and years. Thanks to the butchers out there, the supply of good working Drake Radios, is only decreasing, therefore increasing the demand, and driving the prices upwards.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

Sent from my iPad.

> On Apr 6, 2014, at 11:29, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
> Paul,
>
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>> I do snipe and I seldom inform others about a good deal I'm watching unless it is something I'm really not interested in.
>>
>> My 5c worth (inflation you know)
>>
>> Paul K0UYA
>>
>> From: Bernie
>> Sent: Sunday, April 06, 2014 7:16 AM
>> To: DrakeRadio@yahoogroups.com
>> Subject: Re: [DrakeRadio] Drake Gear and Parts
>>
>> David,
>> EBAY prices are inflated over standard hamfest prices and one has shipping to pay also. At least 30% sometimes 50% higher on EBAY!
>> Go into EBAY's history of sales for a particular item, make a list and average them, then take 25% off and you should be aball-park. Just saying...
>>
>> Bernie in ND
>> WDØGMD
>>
>> ----- Original Message -----
>> From: David E. Rudd, CET WCM
>> To: drakeradio@yahoogroups.com
>> Sent: Saturday, April 05, 2014 11:36 PM
>> Subject: [DrakeRadio] Drake Gear and Parts
>>
>> Greetings to everyone on the list.
>>
>> I acquired an estate full of Drake gear and parts. Here is the list. If you need something in the R-4 or TR-4 series and it's not on here, please feel free to ask; I may be able to dig around and find it for you.

>>
>> Qty 5 TR-4 xcvr
>> Qty 4 TR-4C xcvr
>> Qty 4 TR-4Cw xcvr
>> Qty 4 T-4XC xmtr
>> Qty 1 R-4B rcvr
>> Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
>> Qty 1 R-2C rcvr
>> Qty 2 L-4B amplifiers without P/S
>> Qty 2 RV-4 remote VFO
>> Qty 2 RV-4C remote VFO
>> Qty 4 MS-4 speaker / cabinet
>>
>> 1 Drake TR-4 for parts
>>
>> Qty 8 relays R10-E1-Y4-V2.5K 48VDC
>> Qty 4 RIT plugs for TR4Cw
>> Qty 12 L7 lamps
>> Qty 2 .0007MFD 2500WVDC caps
>> Qty 12 Meter / Dial lamps
>> Qty 12 5 amp slo-blo power supply fuses
>> Qty 3 Resistors 2,200,000 ohm labeled "Drake 9MHz resistors"
>> Qty 2 35.500 MHz crystals
>> Qty 2 sheets of blue dial transparent plastic
>> Qty 3 sheets of white dial background plastic
>> Qty 4 relay retaining spring wires
>> Qty 12 noise blanker mounts for R4 rcvr a
>> Qty 9 red panel lamps "Drake -C2A" with retaining clips
>> Qty 12 fuse holders with caps
>> Qty 3 multi-value capacitor, 65-20-10/350 10/50
>> Qty 1 multi-value capacitor, 65/350 20/250 10/50
>> Various pots and switches
>> R4C to T4XC interconnect cables
>> Qty 12 Drake mic plugs
>> Qty 1 set Band Switch wafers for TR-4Cw
>> Qty 1 T4/T4X cox delay relay
>> Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
>> Qty 1 R4 Noise Blanker with cable
>> Qty 1 L4B filament transformer
>> Qty 1 TR4 series Plate Current meter
>> Qty 1 R4 series S-unit / DB meter
>> Qty 1 bezel T4/R4 meter
>> Qty 2 TR-4 series Plate/Current meter
>> Qty 5 Drake tuning dial inlays
>> Qty 3 T4/T4X carrier balance pots
>> Qty 12 TR4 series antenna fuse lamps
>> Qty 1 R4C RCC4 Calibrator PCB
>> Qty 1 R4C DC Pwr Supply PCB
>> Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
>> Various knobs, inlays and calibration skirts

>> Qty 1 plug in 9vdc @ 200 am transformer
>> Various plug in crystals
>> Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
>> Qty 10 560MFD @ 400 vdc electrolytic capacitors
>> Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
>> Qty 14 spring clips for the final tube top anode
>> Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
>> Qty 9 20K potentiometer
>> Qty 24 diodes 1N5408 for L4B
>> Qty 1 RY1 antenna relay for L4B
>> Qty 1 AGC pot for L4B
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>> Qty 2 fox sockets for L4B
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>> Qty 2 Parasitic choke assemblies L4B
>> Sherwood Engineering Kits, complete mods for R-4C, competition grade:
>> PD-4 (R4-C Product Detector)
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>> I appreciate serious, reasonable offers.
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>> Thanks for your interest and I hope I have something here that can help you out.
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>> Are there any dedicated repair guys out there that want the entire lot? I am willing to make a deal on everything here. I will also post photos if anyone is interested.
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>> Thanks for looking.
>>
>> David E. Rudd, CET WCM
>> de AI4JI
>>
>> Sent from the iPad Air of AI4JI
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> Yahoo Groups Links
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19854. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 18:21:59 UTC
From: <w7pva@...>
Topic: 19830 Message: 19854

Yesterday I searched eBay, as is my practice, just cruising looking for interesting items at a reasonable price. I found a R4C, T4C and a MS4 with PS. The seller had separated the set and was offering each for $199. In the text he stated that he had no knowledge of how they worked, if they worked. He only knew that when they were connected that the tubes and lights lit.
I have seen a set of twins go for as little as $250 from a private party AND they operated as they should. The seller on eBay is offering a pig-in-a-poke for a price reserved, or should be, for operating equipment. eBay is caveat emptor...
David, I wish you well in the sale of your equipment. I always like to deal with another ham, if the price is reasonable, a win-win, for both sides. I've found that most hams are honest about the gear they sell. Some do not always tell the whole story. For the most part items I have purchased from fellow hams were as advertised but generally in need of a little TLC and minor repairs.

Good Luck and 73,

Bill - W7PVA

---In DrakeRadio@yahoogroups.com, <ai4ji@...> wrote :

Paul,

Thanks for that input. I did what Bernie suggested and the prices just seemed way too low. Funny he did that to me because he didn't even want anything on my list.

I'm the new guy to the group, and have to get used to people. I was hoping not to get used by fellow hams tho. Good thing is, I don't 'have' to sell any of this. It's been happily setting on covered shelves in my climate controlled basement. I play with a rig or two when I choose. I put the list up, hoping to help the guys out that have been looking for things. And for all of you that have responded, thank you. I'm getting to your emails in the order I've received them.

David

Sent from my iPhone AI4JI

[Non-text portions of this message have been removed]

19855. Re: [DrakeRadio] Drake Gear and Parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 19:33:59 UTC
From: David E. Rudd, CET WCM
Topic: 19830 Message: 19855

Hi Dan,

Thanks for that, I appreciate it. I also value the advice from everyone, I understand the folks here have been trying to help, I appreciate that too. I've gone thru boxes and have been picking parts for those that have asked. I'm not about making a big profit on any of this stuff. Breaking even is fine with me. I'm retired from the US Army and I work for Motorola on commercial and public safety communications systems, so I don't have to sell this stuff to eat. If I can help you folks out, that works for me.

David

Sent from the iPad Air of AI4JI

> On Apr 6, 2014, at 14:00, Dan Galligan <w3rxo@...> wrote:
>
> David,
> Bernie is a real straight shooter, and what he said is generally true. But not always. That's the problem with "general rule". It's not always going to be accurate, but will be, within the laws of average.
> That said, Paul and Don, are also giving good advice, that really isn't all that contrary to what Bernie had to say. It's much a matter of perspective. If you enjoy going to hamfests, and socializing, hoping to run across something that maybe you want, and get it at a great deal. It's more pleasure, than business. But, if you need something, and take the time to go out of your way, to go to a Hamfest, and it costs you that which you otherwise would not have expended, then hamfests might not be the best way to go. eBay is convenient, and you pay for that convenience, in one way shape or form. Depending on your perspective, again.
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relative low supply, the price goes up. Sometimes, exponentially.
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> >> David,
> >> EBAY prices are inflated over standard hamfest prices and one has shipping to pay also. At least 30% sometimes 50% higher on EBAY!
> >> Go into EBAY's history of sales for a particular item, make a list and average them, then take 25% off and you should be aball-park. Just saying...

> >>
> >> Bernie in ND
> >> WDØGMD
> >>
> >> ----- Original Message -----
> >> From: David E. Rudd, CET WCM
> >> To: drakeradio@yahoogroups.com
> >> Sent: Saturday, April 05, 2014 11:36 PM
> >> Subject: [DrakeRadio] Drake Gear and Parts
> >>
> >> Greetings to everyone on the list.
> >>
> >> I acquired an estate full of Drake gear and parts. Here is the list. If you need something in the R-4 or TR-4 series and it's not on here, please feel free to ask; I may be able to dig around and find it for you.
> >>
> >> Qty 5 TR-4 xcvr
> >> Qty 4 TR-4C xcvr
> >> Qty 4 TR-4Cw xcvr
> >> Qty 4 T-4XC xmtr
> >> Qty 1 R-4B rcvr
> >> Qty 2 R-4C rcvr with Sherwood Engineering competition upgrades
> >> Qty 1 R-2C rcvr
> >> Qty 2 L-4B amplifiers without P/S
> >> Qty 2 RV-4 remote VFO
> >> Qty 2 RV-4C remote VFO
> >> Qty 4 MS-4 speaker / cabinet
> >>
> >> 1 Drake TR-4 for parts
> >>
> >> Qty 8 relays R10-E1-Y4-V2.5K 48VDC
> >> Qty 4 RIT plugs for TR4Cw
> >> Qty 12 L7 lamps
> >> Qty 2 .0007MFD 2500WVDC caps
> >> Qty 12 Meter / Dial lamps
> >> Qty 12 5 amp slo-blo power supply fuses
> >> Qty 3 Resistors 2,200,000 ohm labeled "Drake 9MHz resistors"
> >> Qty 2 35.500 MHz crystals
> >> Qty 2 sheets of blue dial transparent plastic
> >> Qty 3 sheets of white dial background plastic
> >> Qty 4 relay retaining spring wires
> >> Qty 12 noise blanker mounts for R4 rcvr a
> >> Qty 9 red panel lamps "Drake -C2A" with retaining clips
> >> Qty 12 fuse holders with caps
> >> Qty 3 multi-value capacitor, 65-20-10/350 10/50
> >> Qty 1 multi-value capacitor, 65/350 20/250 10/50
> >> Various pots and switches
> >> R4C to T4XC interconnect cables
> >> Qty 12 Drake mic plugs
> >> Qty 1 set Band Switch wafers for TR-4Cw

> >> Qty 1 T4/T4X cox delay relay
> >> Qty 1 T4/TR4 Speech Processor, DX Engineering LC-2-T4X
> >> Qty 1 R4 Noise Blanker with cable
> >> Qty 1 L4B filament transformer
> >> Qty 1 TR4 series Plate Current meter
> >> Qty 1 R4 series S-unit / DB meter
> >> Qty 1 bezel T4/R4 meter
> >> Qty 2 TR-4 series Plate/Current meter
> >> Qty 5 Drake tuning dial inlays
> >> Qty 3 T4/T4X carrier balance pots
> >> Qty 12 TR4 series antenna fuse lamps
> >> Qty 1 R4C RCC4 Calibrator PCB
> >> Qty 1 R4C DC Pwr Supply PCB
> >> Qty 1 Drake 34-PNB plug in Noise Blanker with install instructions
> >> Various knobs, inlays and calibration skirts
> >> Qty 1 plug in 9vdc @ 200 am transformer
> >> Various plug in crystals
> >> Qty 4 resistors, wire wound, 5K @ 25 watts, tubular 2"
> >> Qty 10 560MFD @ 400 vdc electrolytic capacitors
> >> Qty 50 47 ohm carbon resistors, TR4 series parasitic suppressor
> >> Qty 14 spring clips for the final tube top anode
> >> Qty 3 Jones connectors, 12 pin AC-4 power supply to rig
> >> Qty 9 20K potentiometer
> >> Qty 24 diodes 1N5408 for L4B
> >> Qty 1 RY1 antenna relay for L4B
> >> Qty 1 AGC pot for L4B
> >> Qty 2 sets C43 & 44 door knob caps for L4B
> >> Qty 2 fox sockets for L4B
> >> Qty 3 mica insulators for L4B
> >> Qty 1 set (2 sockets) for L4B / 3-500Z's
> >> Qty 1 RF Plate Choke for L4B (RFC-4)
> >> Qty 2 Parasitic choke assemblies L4B
> >> Sherwood Engineering Kits, complete mods for R-4C, competition grade:
> >> PD-4 (R4-C Product Detector)
> >> MIX-4C (mixer for R-4C)
> >> AMP-4 (R-4C audio amp)
> >> PS-4 (R-4C power supply replacement)
> >> Note: I found the credit card receipt in with the box of Sherwood Engineering kits, they spent over $900 on these kits to max out the performance of these receivers.
> >> Sure desk mics
> >> Astatic desk mics
> >> Lots of tubes.
> >> Various other spare parts, bits, bunches, boards and related stuff.
> >>
> >> I don't have prices listed because I haven't had the time nor motivation to research all of this. If you are interested in something, let me know, make a reasonable offer and I'll check the values at eBay, WB4HFN, and other sources.
> >>
> >> I appreciate serious, reasonable offers.
> >> Ridiculous low offers will be scorned and deleted, please don't waste my time.

> >>
> >> Thanks for your interest and I hope I have something here that can help you out.
> >>
> >> Are there any dedicated repair guys out there that want the entire lot? I am willing to make a deal on everything here. I will also post photos if anyone is interested.
> >>
> >> Thanks for looking.
> >>
> >> David E. Rudd, CET WCM
> >> de AI4JI
> >>
> >> Sent from the iPad Air of AI4JI
> >>
> >> [Non-text portions of this message have been removed]
> >
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> > Yahoo Groups Links
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19856. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 20:45:19 UTC
From: Steve Wedge
Topic: 19832 Message: 19856

That was going to be my guess. Most email clients put them on as attachments, and Yahoo strips those out. Interesting.

Will have to use "copy/paste" into the body next time I'm needing to do this.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: vacuuminded2@...
Sent: Sunday, April 06, 2014 10:26 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] A photo; Interesting

Um quite simply for me, they way you attach a photo anywhere else- in the body of the email. See:

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Apr 6, 2014, at 8:59 AM, Steve Wedge <w1es1982@...> wrote:

How do you attach photos?

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

On Apr 6, 2014, at 8:34 AM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:

Is it? (Shrug)

Sent from my iPhone AI4JI

On Apr 6, 2014, at 8:00, Chgypsy@... wrote:

Interesting that you posted a phone picture on a list that normally you
have to put a pic into Yahoo.
Carl WD8NHK

In a message dated 4/6/2014 1:04:29 A.M. Eastern Daylight Time,
ai4ji@... writes:

Here they are, on the wall in the spare bedroom:

Sent from my iPhone AI4JI

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19857. Re: [DrakeRadio] R4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 20:46:27 UTC
From: Steve Wedge
Topic: 5130 Message: 19857

And his lack of research could be a boon for you

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: g4jss@tiscali.co.uk
Sent: Sunday, April 06, 2014 11:54 AM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] R4B

Hello all
Thanks for input re this. The general opinion seems to be that the seller does not appear to have any knowledge of what he is selling. A
strong possibility is that he has plugged it in,it lit up and got no noise (assuming that he attached a speaker) and decided to sell it
as non working. If the R4B is the same as the R4C then he may have not shorted the muting jack on the back panel hence silence.

Just a thought.

Thank you.

Vic

G4JSS

[Non-text portions of this message have been removed]

19858. R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 21:05:25 UTC
From: GRANT YOUNGMAN
Topic: 19804 Message: 19858

I posted earlier about the notch alignment on my R4B being off a bit. I've since redone the complete IF alignment of the radio again, which didn't fix the notch issue – it really does appear to be out some. It will sweep the notch through the LSB completely, but will only go about 1.5 Khz into the USB passband. I'm more in the mood to leave it as is, since life is short, and I need to get on to other projects – like refinishing the cabinet.

I put a sweep generator on the IF and looked at the passband. What I discovered is that if I aligned the passband tuner (PBT) per the manual instructions I invariably ended up with a ragged and non-symetrical passband in the 1.4 and 2.8 Khz positions. This likely explains why one sideband (usually the USB side) sounded a bit "muffled" compared to the LSB side. I finally did the PBT alignment in the 2.8 Khz bandwidth position with a sweep generator to get the most flat and symmetrical IF response I could. The passband shape in the 400 Hz and 1.4 Khz positions looks quite good also.

AND – the radio sounds excellent now on both LSB and USB. Sweep alignment turned out to be admittedly more tedious than I'd hoped, but IMO it is well worth the effort if you have the equipment to do it. Maybe what this really means is that if you don't think the PBT is messed up in one of these R4x radios, leave it alone! :)

Grant NQ5T

19859. TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 22:02:17 UTC
From: <n1ohn@...>
Topic: 19859 Message: 19859

I'm having a hard time trying to figure out what the value and wattage is on the two parasitic resistor connected to the coil PC-1,2 are. Any one know?

Thanks
Dave :)

[Non-text portions of this message have been removed]

19860. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-06 22:19:43 UTC
From: David E. Rudd, CET WCM
Topic: 19859 Message: 19860

47 ohms

David

Sent from my iPhone AI4JI

> On Apr 6, 2014, at 18:02, <n1ohn@...> wrote:
>
> I'm having a hard time trying to figure out what the value and wattage is on the two parasitic resistor connected to the coil PC-1,2 are. Any one know?
>
>
> Thanks
> Dave :)
>
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19861. My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 00:40:59 UTC
From: <rochep@...>
Topic: 19861 Message: 19861

Just posted a couple of photos of my first EVER Drake station, taken TODAY!! My R4A is working fine, as is the T4XC with new rebuilt AC4 power supply (not in photo). I have made quite a few QSOs, life is good!! Now to get an MS4 ... ...

(oh yeah, and to align the radios too, but for now working just fine!!!)

paul

[Non-text portions of this message have been removed]

19862. Re: [DrakeRadio] My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 00:46:30 UTC
From: john
Topic: 19861 Message: 19862

Congrats Paul! Welcome to the Drake family...

73
John K5MO

At 08:40 PM 4/6/2014, you wrote:
>Just posted a couple of photos of my first EVER Drake station, taken
>TODAY!! My R4A is working fine, as is the T4XC with new rebuilt AC4 power
>supply (not in photo). I have made quite a few QSOs, life is good!! Now
>to get an MS4 ... ...
>
>(oh yeah, and to align the radios too, but for now working just fine!!!)
>
>paul
>
>[Non-text portions of this message have been removed]
>
>
>
>------------------------------------
>
>Yahoo Groups Links
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III

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

19863. Re: My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 00:49:00 UTC
From: <rochep@...>
Topic: 19861 Message: 19863

Oh yeah, the blue main dials are from LEDs I got from 2BRADIOPARTS. I still need to remove the blue backing on the T4X. I don't know WHY the S meter on the R4A is WHITE but the PLATE AMPS meter on the T4XC has the nice Drake "blue" (I guess this is the REAL "blue" that I should be shooting for, not the ultra-blue from the LED).
Looks awesome to ME.

p

[Non-text portions of this message have been removed]

19864. Re: My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 01:00:05 UTC
From: <dcoffman@...>
Topic: 19861 Message: 19864

Paul,

Welcome to the group.

I have never been a big fan of the blue LED implementation in the Drake line but yours looks quite nice. Now if you can get your meters to match you will have it licked.

Very nice,

Doug - N9XTF

[Non-text portions of this message have been removed]

19865. Re: [DrakeRadio] A photo; Interesting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 01:02:41 UTC
From: <dcoffman@...>
Topic: 19832 Message: 19865

On every comment that Yahoo forwards to me, I get the "Non Text portions Removed" or something like that. I never get any of the photos that are attached to anyone's comments.

Doug - N9XTF

[Non-text portions of this message have been removed]

19866. Re: [DrakeRadio] Re: My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 01:06:02 UTC
From: Richard Knoppow
Topic: 19861 Message: 19866

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 06, 2014 5:49 PM
Subject: [DrakeRadio] Re: My FIRST Drake Station!

> Oh yeah, the blue main dials are from LEDs I got from
> 2BRADIOPARTS. I still need to remove the blue backing on
> the T4X. I don't know WHY the S meter on the R4A is WHITE
> but the PLATE AMPS meter on the T4XC has the nice Drake
> "blue" (I guess this is the REAL "blue" that I should be
> shooting for, not the ultra-blue from the LED).
> Looks awesome to ME.
>
> p
>
Did you send photos to the list, if so they were
stripped off by the list machine. Post them somewhere and
send a link to the list.
I don't know how the R4A meter is set up but in the R4B
and T4XB there is a strip of filter material runing around
the edge of the meter where the lamp is. This serves to
color the light from the lamp.
The idea of the arrangement is that the red markings on
dial and meter will be illuminated by ambient light while
the filter makes the inside light blue. The correct filter
is Lee Lagoon Blue. The original color was a sort of
greenish blue. To my eye very similar to the color of the
phosphor type p-3 used on late CRTs and tuning indicators.
At the time the Drake line was being made many consumer
electronics (mostly hi-fi stuff) had a sort of radio-active
blue glow.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19867. Re: R4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 01:08:49 UTC
From: <dcoffman@...>
Topic: 5130 Message: 19867

I have seen this many times from both Ebay sellers and other sites. Guys will post their adds, utilizing very poor grammar and language in an attempt to look very uneducated on the Ham Radio subject. Under further investigation, I have found that this is done on purpose in a great deal of cases. This gets the items sold and the seller hopes to not have blowback when the item shows up in a less than desirable manner. A great deal of the sellers are actually Ham Radio operators that do or should know more about the equipment they are selling.

There appears to be a plethora of "Estate Sale" items that show up on Ebay. Good lord, are all of the Ham Radio operators croaking off at the same time? I think not!!! I have seen this at a couple of recent Hamfests as well.

Ain't fooling me!

Doug - N9XTF

[Non-text portions of this message have been removed]

19868. Re: [DrakeRadio] Re: My FIRST Drake Station!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 01:37:32 UTC
From: Richard Knoppow
Topic: 19861 Message: 19868

----- Original Message -----
From: "Richard Knoppow" <1oldlens1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 06, 2014 6:06 PM
Subject: Re: [DrakeRadio] Re: My FIRST Drake Station!

Found the photo. Those of us who use the e-mail version
of Yahoo lists can forget that the web site has a place for
photos. So the photos were there but were stripped from the
e-mails.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19869. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 05:06:47 UTC
From: Richard Knoppow
Topic: 19804 Message: 19869

----- Original Message -----
From: "GRANT YOUNGMAN" <nq5t@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 06, 2014 2:05 PM
Subject: [DrakeRadio] R4B Alignment Observations

I posted earlier about the notch alignment on my R4B being
off a bit. I?ve since redone the complete IF alignment of
the radio again, which didn?t fix the notch issue ? it
really does appear to be out some. It will sweep the notch
through the LSB completely, but will only go about 1.5 Khz
into the USB passband. I?m more in the mood to leave it as
is, since life is short, and I need to get on to other
projects ? like refinishing the cabinet.

I put a sweep generator on the IF and looked at the
passband. What I discovered is that if I aligned the
passband tuner (PBT) per the manual instructions I
invariably ended up with a ragged and non-symetrical
passband in the 1.4 and 2.8 Khz positions. This likely
explains why one sideband (usually the USB side) sounded a
bit ?muffled? compared to the LSB side. I finally did the
PBT alignment in the 2.8 Khz bandwidth position with a sweep
generator to get the most flat and symmetrical IF response I
could. The passband shape in the 400 Hz and 1.4 Khz
positions looks quite good also.

AND ? the radio sounds excellent now on both LSB and USB.
Sweep alignment turned out to be admittedly more tedious
than I?d hoped, but IMO it is well worth the effort if you
have the equipment to do it. Maybe what this really means
is that if you don?t think the PBT is messed up in one of
these R4x radios, leave it alone! :)

Grant NQ5T

As a result of extensive research in our modern
laboratories and back-breaking labor by our highly trained
staff, we probably have an answer to the notch filter
problem. To wit:
I got curious because I remembered having some trouble
with the notch filter in the past. I decided to find out how
wide a range it covered. Result: the range was quite
lopsided and the mid frequency did not co-incide with the
zero beat frequency of the calibrator as indicated in the
use and alignment instructions (you have to read both). I

decided to give the slug a slight tweek. I had no more than reached into the back of the shield can when I found that the notch filter did not work at all! Of course first thoughts were that I had destroyed something although I couldn't figure out what. Then a close look at the mechanism brought back a memory: The slug is moved by a cam and lever mechanism at the front of the filter can. The lever moves the slug by means of its spring-like shaft. The socket in the back of the slug, which fits a 1/16" Allen key moves the slug at the point where it is held by the lever. There is a collar in the lever through which this shaft goes. It is not necessary to use the Allen key and, in fact, I am not sure its a good idea. The position of the slug shaft in the collar is what controls the range of frequency over which the notch works. If you find the notch filter does not work at all its probably because the slug is very far off its proper location. Check the amount of the "tail" of the slug shaft sticking out of the collar on the lever, it should not be very short or very long. You can move the slug position forward by holding the lever with the end of a small screwdriver and pushing gently on the slug with the end of an Allen key struck into the back of the shield can. To move the slug toward the front panel grip the tail of the shaft as it comes from the front of the collar with a small pair of needle nose pliers and pull it gently forward while holding the lever with the small screwdriver or similar tool. It takes very little movement but if you go too far its easy enough to go back. At some point you should get the slug to the position where the filter notches out a zero beat signal from the calibrator with the knob pointing straight up. A small deviation will cause the range of the notch to be limited on one or the other side. This is not a difficult adjustment but its tedious to get right. When its centered the range of the notch is about 2.5 khz either side of zero beat. One would think it capable of a wider range but that's it. This is enough to null out most signals when using the 2.5 khz bandwidth but will not make the ends of the 4.8 khz when the pass band tuner is used. Then it will notch out signals about half-way across the band pass. I don't know how stable this adjustment is but I probably never centered it exactly so whatever error I found was probably the result of the original adjustment and not drift. In any case it was a few years ago.
My notch filter has some back lash in the adjustment, probably due to the end of the shaft rubbing something or perhaps just the slug itself. When exactly notched using a little fine tuning its possible to get the calibrator signal down to where its inaudible. The pot associated with the notch should be carefully adjusted for maximum notch depth. If your filter has the sort of back-lash mine does use the

main tuning to get exactly in the notch. The pot and the tuning interact slightly so get the best notch depth you can and then adjust the tuning slightly to get it deeper. After a couple of iterations the notch will be very deep. The pot adjustment seems to be quite stable.

How do I get into these things?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19870. Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 11:03:21 UTC
From: Steve Wedge
Topic: 19870 Message: 19870

http://www.ebay.com/itm/VINTAGE-DRAKE-R-4A-HAM-RADIO-RECEIVER-GOOD-CONDITION-/261446216060?ssPageName=ADME:B:SS:US:1123

Basically, he or she's asking $200 for this. What I think happens is that folks who really know nothing about amateur equipment check the other prices from items sold, and figure that their set is worth the same. So they don't even see the wrong knobs, the wrong screws and other miscues.

No excuse for calling that cruddy chassis "good condition", though...

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

19871. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 11:13:35 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19871

Hi Dave

Are you sure its 47 ohm? The only bands I can see from my burnt ones are brown and black with a gold tolerance band.

Thanks :)

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19872. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 12:32:23 UTC
From: David E. Rudd, CET WCM
Topic: 19859 Message: 19872

It's Yellow Violet, 47 ohms at 5 watts, carbon resistor with the wire wound around them. I have a large bag of them and they are the same as in all the Drake radios that I have.

David

Sent from my iPhone AI4JI

> On Apr 7, 2014, at 7:13, "n1ohn@..." <n1ohn@...> wrote:
>
> Hi Dave
>
> Are you sure its 47 ohm? The only bands I can see from my burnt ones are brown and black with a gold tolerance band.
>
> Thanks :)
>
> Sent from Yahoo Mail on Android
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19873. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 13:16:02 UTC
From: <k6ctw@...>
Topic: 19859 Message: 19873

Interresting. That's the same as the one on the DX-60 to neutralize the 6146. I'll be making one for the DX-60 I'm restoring right now, as soon as I finish making a new mode switch wafer.

73 - ken, k6ctw

[Non-text portions of this message have been removed]

19874. Re: [DrakeRadio] Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 14:32:34 UTC
From: Paul Kraemer
Topic: 19870 Message: 19874

Be a good sam and point out his flawed thinking. A few do appreciate the heads up, especially after it doesn't sell
Paul K0UYA

From: "Steve Wedge" <w1es1982@...>
Sent: Monday, April 07, 2014 6:03 AM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] Here's an example of a clueless eBay seller

> http://www.ebay.com/itm/VINTAGE-DRAKE-R-4A-HAM-RADIO-RECEIVER-GOOD-CONDITION-/261446216060?ssPageName=ADME:B:SS:US:1123
>
> Basically, he or she's asking $200 for this. What I think happens is that
> folks who really know nothing about amateur equipment check the other
> prices from items sold, and figure that their set is worth the same. So
> they don't even see the wrong knobs, the wrong screws and other miscues.
>
> No excuse for calling that cruddy chassis "good condition", though...
>
> Steve Wedge, W1ES/4
>
> Sent from my iPad: please don't laugh too hard at any autocorrect grammar
> changes :)
>
> ------------------------------------
>
> Yahoo Groups Links
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19875. Re: [DrakeRadio] Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 15:48:22 UTC
From: K5MYJ
Topic: 19870 Message: 19875

I have been selling old model airplane engines on eBay for about 6 years.

We started pricing them at about 60% of what the reference books said they were worth. NO BUYERS!

One of our club members told us to start them a $9.99. THIS GAVE ME GAS!

But it works. We generally will get good prices for them. One very rare engine sold for $3500. Another for $2500.

Basing your starting price on what you see on other eBay auctions is a wasted effort.

If you want a minimum price your best option is to use a "Buy-It-Now". If it does not sell, you want TOO MUCH!

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"

----- Original Message -----
From: Paul Kraemer
To: DrakeRadio@yahoogroups.com
Sent: Monday, April 07, 2014 7:32 AM
Subject: Re: [DrakeRadio] Here's an example of a clueless eBay seller

Be a good sam and point out his flawed thinking. A few do appreciate the
heads up, especially after it doesn't sell
Paul K0UYA

From: "Steve Wedge" <w1es1982@...>
Sent: Monday, April 07, 2014 6:03 AM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] Here's an example of a clueless eBay seller

> http://www.ebay.com/itm/VINTAGE-DRAKE-R-4A-HAM-RADIO-RECEIVER-GOOD-CONDITION-/261446216060?ssPageName=ADME:B:SS:US:1123
>
> Basically, he or she's asking $200 for this. What I think happens is that
> folks who really know nothing about amateur equipment check the other
> prices from items sold, and figure that their set is worth the same. So
> they don't even see the wrong knobs, the wrong screws and other miscues.
>
> No excuse for calling that cruddy chassis "good condition", though...
>
> Steve Wedge, W1ES/4

>
> Sent from my iPad: please don't laugh too hard at any autocorrect grammar
> changes :)
>
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>
> Yahoo Groups Links
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[Non-text portions of this message have been removed]

19876. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 15:21:23 UTC
From: GRANT YOUNGMAN
Topic: 19804 Message: 19876

It’s good there are modern laboratories :)

The lopsided notch is certainly the problem. The one on this R4B tunes from around 45-46 kHz (I didn’t actually make note of the exact low side freq.), up through only 51.5 kHz. Definitely not symmetrical around 50 Khz.

It appears that there is enough cable length to lift the notch assembly partly out of the radio to work on it – at least get it up to the point that the working spaces are a bit less tight, and get a better look at that bushing.

Grant NQ5T

On Apr 7, 2014, at 12:06 AM, Richard Knoppow <1oldlens1@...> wrote:

>
> ---
>
> As a result of extensive research in our modern
> laboratories and back-breaking labor by our highly trained
> staff, we probably have an answer to the notch filter
> problem. To wit:
> I got curious because I remembered having some trouble
> with the notch filter in the past. I decided to find out how
> wide a range it covered. Result: the range was quite
> lopsided and the mid frequency did not co-incide with the
> zero beat frequency of the calibrator as indicated in the
> use and alignment instructions …

> lever moves the slug by means of its spring-like shaft. The
> socket in the back of the slug, which fits a 1/16" Allen key
> moves the slug at the point where it is held by the lever.
> …

> shield can. To move the slug toward the front panel grip the
> tail of the shaft as it comes from the front of the collar
> with a small pair of needle nose pliers and pull it gently
> forward while holding the lever with the small screwdriver
> or similar tool.

19877. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 15:40:05 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19877

Hmmmm not what's in my tx4b lol must be why the coil went.

Dave :)

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19878. Re: [DrakeRadio] Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 16:10:29 UTC
From: Steve Wedge
Topic: 19870 Message: 19878

I start all of mine as fixed price for 30 days. Everything sells before the end of 30 days.

When they go to auction, I put in a reserve. Costs me a few extra bucks but is worth it.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 7, 2014, at 11:48 AM, "K5MYJ" <macklinbob@...> wrote:
>
> I have been selling old model airplane engines on eBay for about 6 years.
>
> We started pricing them at about 60% of what the reference books said they were worth. NO BUYERS!
>
> One of our club members told us to start them a $9.99. THIS GAVE ME GAS!
>
> But it works. We generally will get good prices for them. One very rare engine sold for $3500. Another for $2500.
>
> Basing your starting price on what you see on other eBay auctions is a wasted effort.
>
> If you want a minimum price your best option is to use a "Buy-It-Now". If it does not sell, you want TOO MUCH!
>
> Bob Macklin
> K5MYJ
> Seattle, Wa.
> "Real Radios Glow In The Dark"
>
> ----- Original Message -----
> From: Paul Kraemer
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, April 07, 2014 7:32 AM
> Subject: Re: [DrakeRadio] Here's an example of a clueless eBay seller
>
> Be a good sam and point out his flawed thinking. A few do appreciate the
> heads up, especially after it doesn't sell
> Paul K0UYA
>
> --
> From: "Steve Wedge" <w1es1982@...>
> Sent: Monday, April 07, 2014 6:03 AM
> To: <DrakeRadio@yahoogroups.com>
> Subject: [DrakeRadio] Here's an example of a clueless eBay seller
>

> > http://www.ebay.com/itm/VINTAGE-DRAKE-R-4A-HAM-RADIO-RECEIVER-GOOD-CONDITION-/261446216060?ssPageName=ADME:B:SS:US:1123
> >
> > Basically, he or she's asking $200 for this. What I think happens is that
> > folks who really know nothing about amateur equipment check the other
> > prices from items sold, and figure that their set is worth the same. So
> > they don't even see the wrong knobs, the wrong screws and other miscues.
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> > No excuse for calling that cruddy chassis "good condition", though...
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> > Steve Wedge, W1ES/4
> >
> > Sent from my iPad: please don't laugh too hard at any autocorrect grammar
> > changes :)
> >
> > ------------------------------------
> >
> > Yahoo Groups Links
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> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

19879. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 16:12:11 UTC
From: Steve Wedge
Topic: 19804 Message: 19879

Please keep us posted on this, Grant!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 7, 2014, at 11:21 AM, GRANT YOUNGMAN <nq5t@...> wrote:
>
> It’s good there are modern laboratories :)
>
> The lopsided notch is certainly the problem. The one on this R4B tunes from around 45-46 kHz (I didn’t actually make note of the exact low side freq.), up through only 51.5 kHz. Definitely not symmetrical around 50 Khz.
>
> It appears that there is enough cable length to lift the notch assembly partly out of the radio to work on it – at least get it up to the point that the working spaces are a bit less tight, and get a better look at that bushing.
>
> Grant NQ5T
>
>
>> On Apr 7, 2014, at 12:06 AM, Richard Knoppow <1oldlens1@...> wrote:
>>
>>
>> ---
>>
>> As a result of extensive research in our modern
>> laboratories and back-breaking labor by our highly trained
>> staff, we probably have an answer to the notch filter
>> problem. To wit:
>> I got curious because I remembered having some trouble
>> with the notch filter in the past. I decided to find out how
>> wide a range it covered. Result: the range was quite
>> lopsided and the mid frequency did not co-incide with the
>> zero beat frequency of the calibrator as indicated in the
>> use and alignment instructions …
>
>> lever moves the slug by means of its spring-like shaft. The
>> socket in the back of the slug, which fits a 1/16" Allen key
>> moves the slug at the point where it is held by the lever.
>> …
>
>> shield can. To move the slug toward the front panel grip the
>> tail of the shaft as it comes from the front of the collar
>> with a small pair of needle nose pliers and pull it gently
>> forward while holding the lever with the small screwdriver

>> or similar tool.
>
>
> ------------------------------------
>
> Yahoo Groups Links
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>

19880. Re: Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 16:32:50 UTC
From: Mike Bryce
Topic: 19870 Message: 19880

Guys,

I feel that some of the TV shows, like the American pickers and storage wars, has created a mindset that everything old must be worth lots of money.

I looked at the ebay ad. It is complete, has all the knobs, not the right ones, but all the knobs. And, perhaps, if the guy has been dealing with old stuff, not necessarily radios, then to him the chassis is in good condition.

Value, like beauty, is in the eye of the beholder.

There's a TR-22 for $100, and I saw a SR1 for $500.

or my favorite Drake ebay ad

the UV-3 listed for $999 with a touch tone mic. The seller went into a long detailed description on how much money you could save on your cell phone bills because you could make phone calls with this radio.

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
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[Non-text portions of this message have been removed]

19881. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 16:37:42 UTC
From: Richard Knoppow
Topic: 19804 Message: 19881

----- Original Message -----
From: "GRANT YOUNGMAN" <nq5t@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 07, 2014 8:21 AM
Subject: Re: [DrakeRadio] R4B Alignment Observations

It?s good there are modern laboratories :)

The lopsided notch is certainly the problem. The one on this R4B tunes from around 45-46 kHz (I didn?t actually make note of the exact low side freq.), up through only 51.5 kHz. Definitely not symmetrical around 50 Khz.

It appears that there is enough cable length to lift the notch assembly partly out of the radio to work on it ? at least get it up to the point that the working spaces are a bit less tight, and get a better look at that bushing.

Grant NQ5T

My first interpretation was that you were not getting a notch at all, evidently a mistake on my part. Its possible, as I found out, to get the slug so far from where it belongs to make it seem the filter is disabled. In fact, this is done deliberately in the "OFF" position.
The tuning for the notch is done by a cam and lever arrangement that moves the slug in the coil. The range of frequencies is determined mainly by the amount of motion the cam allows. You can see the cam at the front of the assembly. The cam is a wedge shaped disc with a notch at one point. The notch is to push the slug well out of its normal position to provide an OFF position by detuning the filter. It seems to move the notch perhaps six or eight Khz from the IF frequency. The measured range on my T4XB is about 2.5 khz either side of center, center being the zero beat frequency for the calibrator. This is independent of the pass band tuning or bandwidth but is most easily observed in the 4.8 khz bandwidth and by moving the PBT to each end of its range. The range of null frequencies will not be symmetrical around zero if the slug is not carefully adjusted to null the zero beat signal when its exactly in the center of its range (knob pointing straight up). Because of the backlash in the adjustment its touchy to get it right but it seems to stay put once you do. The range is pretty much limited to that marked on the front panel. At some point, when turning the knob clockwise it will encounter the

OFF notch and pull the knob the rest of the way into it.
I think the design of the cam was chosen to provide a
wide enough range for most uses without making the
adjustment too finicky.
I am not sure what causes the backlash in mine and
don't know if its a common problem. The cam and lever
arrangement does not seem to be the source. I think perhaps
there is a slight resistance to the motion of the slug
which, in combination with the springiness of the slug
shaft, will cause the slug to jump as its moved. The
backlash makes it difficult to get the null exactly on a
signal but it can be done by slight variation of the main
tuning. This works at least for CW where the slight change
in beat note is not important.
I am also aware of the lack of symmetry of the band
pass filter. I do not have a sweeper but found that after
adjusting according to the book I could touch up the slugs
slightly in the 2.4 khz position to get it better. It does
make a noticeable improvement in the sound on both sidebands
and does not seem to affect the narrower bandwidths
significantly.
FWIW, I've found the best tool for adjusting the slugs
is an alligator clip. I can clip on the end of a shaft, turn
it as necessary, and let go of it without any backlash or
other change. Others use a socket type adjuster but there is
really no flat on the end of the shaft and pushing the
adjuster on or pulling it off can move the slugs a lot.
I've also found that the PBT tuning does vary slightly
as the set warms up so suggest letting the receiver run for
perhaps an hour before making a final adjustment. This is
probably much longer than it takes to reach equilibrium but
seems to be a good practice with any tube set.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19882. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 16:46:38 UTC
From: Richard Knoppow
Topic: 19804 Message: 19882

----- Original Message -----
From: "Richard Knoppow" <1oldlens1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 07, 2014 9:37 AM
Subject: Re: [DrakeRadio] R4B Alignment Observations

One other thought: The linearity of frequency of the
notch filter will depend on both the curve of the cam and
the way the coil is wound. Since the high and low frequency
limits seem to be about the same radial distance from zero
it appears that its intended to be linear. However, I can't
tell if its done by means of the cam or if the coil is wound
such as to compensate from the square-law inductance change
needed to vary the frequency. A coil with variable spacing
is the method used in the Drake and Collins VFO's and may be
used here since Drake knew how to make them.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19883. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 18:38:32 UTC
From: Richard Knoppow
Topic: 19804 Message: 19883

----- Original Message -----
From: "GRANT YOUNGMAN" <nq5t@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 07, 2014 8:21 AM
Subject: Re: [DrakeRadio] R4B Alignment Observations

It?s good there are modern laboratories :)

The lopsided notch is certainly the problem. The one on this R4B tunes from around 45-46 kHz (I didn?t actually make note of the exact low side freq.), up through only 51.5 kHz. Definitely not symmetrical around 50 Khz.

It appears that there is enough cable length to lift the notch assembly partly out of the radio to work on it ? at least get it up to the point that the working spaces are a bit less tight, and get a better look at that bushing.

Grant NQ5T

Since you have a sweeper it would be interesting to know if the shape of the pass band tuner changes any as its tuned. Perhaps you already made this measurement. I can't tell on mine if there is any change. I did a crude measurement by running the PBT across the calibrator signal and using the S-meter with the AVC in FAST to look at the relative flatness of the pass band and where it began to cut off. On mine its relatively flat but I wonder if this is a valid measurement. I will play with this some more and see what I find but a good sweeper would assure a valid measurement.
Note that the change in bandwidth is done by varying the mutual coupling by means of changing the coupling capacitors. This is similar to the method used in some Hallicrafters receivers and has the same characteristic that the expansion is not symmetrical as shown in the selectivity curves in the handbook. This is also probably the reason that the indicator lines on the PBT indicator are not centered and are offset toward the right (USB side). Again, the frequency of the tuned circuits will vary inversely with the square root of the inductance. I have never seen the coils used in the tuner so don't know if they are wound with linear or square-law spacing.
The method of providing for PBT in the Drake R4B is to vary the tuning of the resonant circuits in the filter. This is in distinction to the method used in the Collins 75A-4

and possibly elsewhere (TMC converters?) of varying a conversion oscillator. In the 75A-4 the main tuning oscillator and the conversion oscillator are coupled mechanically so that they change at the same rate. I think this is done electronically in some other receivers or converters. Collins and TMC use fixed frequency filters so the dual variable oscillator method is the only practical way to obtain PBT and to use the same filter for both sidebands. The Drake T4C uses crystal lattice filters, which are fixed frequency and uses separate filters for upper and lower sideband. One can get around this by using a single filter with a switchable fixed frequency conversion oscillator and fixed offsets to the main local oscillator.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19884. DRAKE PRN-1000

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 19:21:32 UTC
From: <wa0urj@...>
Topic: 19884 Message: 19884

As my luck would have it the microprocessor ship in my Drake PRN-1000 got (fried) by a static
electricity discharge. Does ANYONE know where I even might start looking for a replacement chip ? Radio lights up and everything is fine. Narrowed it down to the microprocessor chip. This
was a gift to me from the creator Chuck Harder and I have sure enjoyed it.

David-WA0URJ

[Non-text portions of this message have been removed]

19885. DRAKE SW-2 WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 19:23:01 UTC
From: <wa0urj@...>
Topic: 19885 Message: 19885

In light of my Drake PRN-1000 microprocessor demise I am looking to find a Drake SW-2 shortwave receiver. If anyone has one they would like to sell in good condition please let me
know.

Thank You.
David-WA0URJ

[Non-text portions of this message have been removed]

19886. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:20:42 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19886

Any one know of a mod that would have consisted of changing the value of the parasitic resistors in the TX4B?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19887. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:31:23 UTC
From: K5MYJ
Topic: 19859 Message: 19887

The parasitic chokes have been the same since the 1940's!

They are normally a few turns of enameled wire wound on a 47ohm or 51ohm 2W resistor. They are not critical. They are to stop VHF parasitic oscillation.

Bob Macklin
K5MYJ
Seattle, Wa.
"Real Radios Glow In The Dark"
----- Original Message -----
From: n1ohn@...
To: DrakeRadio@yahoogroups.com
Sent: Monday, April 07, 2014 1:20 PM
Subject: Re: [DrakeRadio] TR4B parasitic resistor??

Any one know of a mod that would have consisted of changing the value of the parasitic resistors in the TX4B?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19888. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:34:05 UTC
From: Garey Barrell
Topic: 19859 Message: 19888

Almost certainly someone changed them after manufacture. No reason to change them, as nothing
else in the PA stages have changed over the years.

Every T-4X(any) and TR-3/4(any) I have seen in the last 50 years had 47 ohm, 2W resistors with 6
turns of #16 solid copper tinned wire space-wound around it.

47 ohm, 2W resistors are getting harder to find, and I suspect someone just used what they had,
not thinking that the value mattered.

(It does!)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Any one know of a mod that would have consisted of changing the value of the parasitic resistors in the TX4B?
>
> Sent from Yahoo Mail on Android
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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19889. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:39:03 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19889

Thanks all!!! I suspected the same thing that someone just tossed in what they had thinking it was OK lol. OK now on the hunt for some 2w 47ohm resistors :(

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19890. Re: [DrakeRadio] A clueless local seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:40:04 UTC
From: William Houghton
Topic: 19870 Message: 19890

A few years ago I went to a local garage sale that was running for 3 days and had mentioned they had ham gear. Unfortunately I couldn't make it until the afternoon of the third day. Sitting on a table was a Hallicrafters SX-101 in typical condition. Some paint scrapes and scuffs on the cabinet. Front panel was dusty. Knobs needed cleaning. I pulled open the top lid and the inside was typical, dusty and the usual grime and light discoloration of the chassis. There was a yellow post-it note that said "$420". I thought that was an unusual number and I politely asked how they came to that figure? "Oh well, there was one of these on ebay that sold last week for $450 so we used that as a reference and lowered it a bit because we want to sell this one". "We've had a lot of guys look at it, but no takers yet".

I went home and looked and sure enough one had recently sold on ebay for $450. However, it was as close to mint as you would find. It must have had a dust cover on it when it wasn't being used. All of the paper caps had been replaced. it had been aligned, etc. Not a single scratch or scrape anywhere.

Bill, WA6NEQ

From: Mike Bryce <prosolar@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Monday, April 7, 2014 9:32 AM
Subject: [DrakeRadio] Re: Here's an example of a clueless eBay seller

Guys,

I feel that some of the TV shows, like the American pickers and storage wars, has created a mindset that everything old must be worth lots of money.

I looked at the ebay ad. It is complete, has all the knobs, not the right ones, but all the knobs. And, perhaps, if the guy has been dealing with old stuff, not necessarily radios, then to him the chassis is in good condition.

Value, like beauty, is in the eye of the beholder.

There's a TR-22 for $100, and I saw a SR1 for $500.

or my favorite Drake ebay ad

the UV-3 listed for $999 with a touch tone mic. The seller went into a long detailed description on how much money you could save on your cell phone bills because you could make phone calls with this radio.

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

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[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19891. Re: [DrakeRadio] A clueless local seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 20:55:40 UTC
From: Eddy Swynar
Topic: 19870 Message: 19891

On 2014-04-07, at 4:40 PM, William Houghton wrote:

>
>
> A few years ago I went to a local garage sale that was running for 3 days and had mentioned they had ham gear. Unfortunately I couldn't make it until the afternoon of the third day. Sitting on a table was a Hallicrafters SX-101 in typical condition. Some paint scrapes and scuffs on the cabinet. Front panel was dusty. Knobs needed cleaning. I pulled open the top lid and the inside was typical, dusty and the usual grime and light discoloration of the chassis. There was a yellow post-it note that said "$420". I thought that was an unusual number and I politely asked how they came to that figure? "Oh well, there was one of these on ebay that sold last week for $450 so we used that as a reference and lowered it a bit because we want to sell this one". "We've had a lot of guys look at it, but no takers yet".
>
> I went home and looked and sure enough one had recently sold on ebay for $450. However, it was as close to mint as you would find. It must have had a dust cover on it when it wasn't being used. All of the paper caps had been replaced. it had been aligned, etc. Not a single scratch or scrape anywhere.
>
> Bill, WA6NEQ
>

Hi Bill,

Walk away from the "deal", but drive by the home for several weeks afterward---you'll most likely be rewarded with the sight of the rig curbside, tossed-out with the weekly garbage like so many empty tin cans...

~73~ de Eddy VE3CUI - VE3XZ
>

[Non-text portions of this message have been removed]

19892. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:06:03 UTC
From: David E. Rudd, CET WCM
Topic: 19859 Message: 19892

I have a bag full of them, new old stock. 47 ohm, 2 Watt carbon, with the wire wound on them.
$5 each. I also have a bag full of the anode clips, should you need new ones of those as well.

David

Sent from the iPad Air of AI4JI

> On Apr 7, 2014, at 16:39, "n1ohn@..." <n1ohn@...> wrote:
>
> Thanks all!!! I suspected the same thing that someone just tossed in what they had thinking it was OK lol. OK now on the hunt for some 2w 47ohm resistors :(
>
> Dave
>
> Sent from Yahoo Mail on Android
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19893. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:10:54 UTC
From: GRANT YOUNGMAN
Topic: 19804 Message: 19893

On Apr 7, 2014, at 1:38 PM, Richard Knoppow <1oldlens1@...> wrote:

> Since you have a sweeper it would be interesting to
> know if the shape of the pass band tuner changes any as its
> tuned.

It does not, at least within the normal tuning range. It looks virtually textbook, and slides nicely around the 50 kHz center. The end dots are pretty well right on in terms of placing the passband in the right place relative to the 50 kHz BFO.

I did use the very sophisticated, finely honed, NIST-tracable, alligator clip tool on the PBT inductors ;) Initially I had to use quite a bit of force to “break” the slugs free to rotate and used pair of surgical clamps to do that, but after they freed up they turned easily with the alligator clip, which needs to be clamped right on the tip of the spring. The alignment adjustment is very touchy – just a tweak off on one slug or other can cause quite a significant change in symmetry and passband ripple in the 2.8 kHz position. I ended up with nice looking passbands everywhere except the 4.8 Khz position, but even that is passable – just not quite as flat. There could possibly be more work done, but I’m happy enough where everything came out.

I just replaced the 2n3877 that drives the NE-2 on the dial index marker, so that works again. Maybe while the primer coats and finish paint are drying on the cabinet this week, I’ll pull the notch assembly and tackle that last remaining issue. Even if the little rubber bushing that holds the spring has dried out and disintegrates, there’s always hot glue :)

Grant NQ5T

19894. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:31:45 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19894

Thanks Dave!!! .... I have to see what I have in stock first :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19895. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:21:12 UTC
From: Doug
Topic: 19859 Message: 19895

AI4JI

Did you get my email about the L4b?

Sent from my iPhone

> On Apr 7, 2014, at 17:06, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
> I have a bag full of them, new old stock. 47 ohm, 2 Watt carbon, with the wire wound on them.
> $5 each. I also have a bag full of the anode clips, should you need new ones of those as well.
>
> David
>
> Sent from the iPad Air of AI4JI
>
> > On Apr 7, 2014, at 16:39, "n1ohn@..." <n1ohn@yahoo.com> wrote:
> >
> > Thanks all!!! I suspected the same thing that someone just tossed in what they had thinking it was OK lol. OK now on the hunt for some 2w 47ohm resistors :(
> >
> > Dave
> >
> > Sent from Yahoo Mail on Android
> >
> > [Non-text portions of this message have been removed]
> >
> >
>
> [Non-text portions of this message have been removed]
>
>

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[Non-text portions of this message have been removed]

19896. new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:59:02 UTC
From: <dmoes@...>
Topic: 19896 Message: 19896

Just joined the group since I just picked up a T-4XC, R-4c,mn-2000 tuner and speaker with PS for the T04xc. it is in superb condition and after a close visual inside and out I took the chance to plug it all in. I have great results receives and transmits well and have been playing most of the weekend including many great QSOs with good reports. just one minor question about tuning.

I am getting the typical output on all bands but the final tuning range concerns me on 20-15-10m the Plate dip seems to be right near the top at close to the 10 mark (minimum capacitance) 80-40 are both in the 6 and 8 range respectively.
is this normal or should I be looking for bad capacitors. I haven't really looked at the schematic yet so just guessing some may have drifted high with time.

[Non-text portions of this message have been removed]

19897. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 22:05:16 UTC
From: n1ohn@yahoo.com
Topic: 19896 Message: 19897

Welcome :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19898. TR-4CW rit PLATE AMP METER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 22:16:08 UTC
From: David Nichols
Topic: 19898 Message: 19898

HELLO ALL,
I GOT MY HANDS ON A TR-4CW rit, HAD MY FIRST ONE IN THE MID 80'S. I WAS HAPPY TO GET ANOTHER ONE IN GREAT CONDITION. IT ALL SEEMED TO GOOD TO BE TRUE. THEN I STARTED TO MAKE IT MINE. YOU KNOW, CLEAN IT UP AND CHECK IT OUT. WELL I FOUND THE R45 BURNED PRETTY WELL AND WHATEVER RESISTOR IS DIRECTLY ABOVE IT WAS CRACKED. IT FELL APART DURING REMOVAL. IT IS TAKING TO MUCH CURRENT TO SET THE PLATE AMP METER TO .100. I HAVE CHECKED MOST EVERYTHING I CAN DREAM UP AND HAVE ORDERED THE SERVICE PART LOCATOR CD.
UPON METER INSPECTION I NOTICED THE COIL OF THE AMP METER IS DARK, ALMOST BLACK. THE METER OTHER THAN NOT READING CORRECTLY IS SLUGGISH AND DOESNT RETURN TO ZERO EASILY. COMPARING THE COILS OF THE TWO METERS, THE S METER AND THE AMP METER I NOTICE THE S METER IS NICE AND GREEN. QUESTION??? IS THE COIL IN MY AMP METER BURNED UP?? DOES ANYONE HAVE ONE I CAN GET?
DAVID, KX7C

[Non-text portions of this message have been removed]

19899. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 23:44:08 UTC
From: Al Parker
Topic: 19896 Message: 19899

Hi,
It could just be that the knob has been moved on the shaft. Nothing to worry about. The eqpt you've gotten is great stuff, glad you're enjoying it.
Welcome to the list, we're a friendly bunch. It's customary to let folks know who you are by a first name & a call.
I'm sure others will chime in with more thoughts.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much worth doing as simply messing about in boats"
Ratty, to Mole

On 4/7/2014 5:59 PM, dmoes@... wrote:
> Just joined the group since I just picked up a T-4XC, R-4c,mn-2000 tuner
> and speaker with PS for the T04xc. it is in superb condition and after a
> close visual inside and out I took the chance to plug it all in. I have
> great results receives and transmits well and have been playing most of
> the weekend including many great QSOs with good reports. just one minor
> question about tuning.
>
> I am getting the typical output on all bands but the final tuning range
> concerns me on 20-15-10m the Plate dip seems to be right near the top at
> close to the 10 mark (minimum capacitance) 80-40 are both in the 6 and 8
> range respectively.
> is this normal or should I be looking for bad capacitors. I haven't
> really looked at the schematic yet so just guessing some may have
> drifted high with time.
>
> [Non-text portions of this message have been removed]
>

19900. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 23:59:07 UTC
From: <wb8yxi@...>
Topic: 19896 Message: 19900

Hello Group,

The same thing is going on with my T4XC. The 80 and 40 meter bands are good, but the upper bands are at the 'edge' of the tuning. I was thinking that the caps may have changed value, but I have not checked them.
Has anyone else had the problem and fixed it? What did you do?

Thanks to the vast storehouse of information, the Drake Yahoo Group!

Ski-WB8YXI

[Non-text portions of this message have been removed]

19901. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 00:42:00 UTC
From: Richard Knoppow
Topic: 19896 Message: 19901

----- Original Message -----
From: <dmoes@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 07, 2014 2:59 PM
Subject: [DrakeRadio] new to drake and happy! minor issue

> Just joined the group since I just picked up a T-4XC,
> R-4c,mn-2000 tuner and speaker with PS for the T04xc. it
> is in superb condition and after a close visual inside and
> out I took the chance to plug it all in. I have great
> results receives and transmits well and have been playing
> most of the weekend including many great QSOs with good
> reports. just one minor question about tuning.
>
> I am getting the typical output on all bands but the
> final tuning range concerns me on 20-15-10m the Plate
> dip seems to be right near the top at close to the 10
> mark (minimum capacitance) 80-40 are both in the 6 and 8
> range respectively.
> is this normal or should I be looking for bad capacitors.
> I haven't really looked at the schematic yet so just
> guessing some may have drifted high with time.
>
I have a T4XB so it may not be quite the same but I
believe the final amp is very similar. Mine requires the
plate tuning to be right at the top when the load is minimum
as it is when you start tuning. As I increase the load the
plate tuning comes down (counter-clockwise) enough to have
good range. I have a full set of crystals in the receiver
(an R4B) and use them to transceive over the range not
covered by the single standard crystal in the transmitter. I
am able to tune up right at 29.7 mhz although there isn't
much margin there. I don't know if this is normal but at
least there is another transmitter that's like yours.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

19902. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 00:54:08 UTC
From: Steve Wedge
Topic: 19896 Message: 19902

Check the neutralization.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 7, 2014, at 5:59 PM, <dmoes@...> wrote:
>
> Just joined the group since I just picked up a T-4XC, R-4c,mn-2000 tuner and speaker with PS for the T04xc. it is in superb condition and after a close visual inside and out I took the chance to plug it all in. I have great results receives and transmits well and have been playing most of the weekend including many great QSOs with good reports. just one minor question about tuning.
>
> I am getting the typical output on all bands but the final tuning range concerns me on 20-15-10m the Plate dip seems to be right near the top at close to the 10 mark (minimum capacitance) 80-40 are both in the 6 and 8 range respectively.
> is this normal or should I be looking for bad capacitors. I haven't really looked at the schematic yet so just guessing some may have drifted high with time.
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19903. Re: [DrakeRadio] Here's an example of a clueless eBay seller

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 02:48:13 UTC
From: Jim Shorney
Topic: 19870 Message: 19903

This is not new. I see it at surplus and estate auctions that I have been attending for many years. The idea is to get people into the bidding war and only then the frenzy starts. An auctioneer can start at a high, but reasonable, price and beg for bidders to no avail. But as he goes lower and lower with his opening price he will hit a point (usually insanely low) where people start jumping into the fray. The item will very often end up selling significantly higher than where the auctioneer first tried to start it.

This is how auctions work. It seems like most people who sell on eBay don't understand this. People that base salling prices on completed eBay auctions don't understand auction frenzy. People who have suffered auction frenzy understand buyer's remorse....

Been there, done that. :)

73

-Jim
NU0C

On Mon, 7 Apr 2014 08:48:22 -0700, K5MYJ wrote:

>I have been selling old model airplane engines on eBay for about 6 years.
>
>We started pricing them at about 60% of what the reference books said they were worth. NO BUYERS!
>
>One of our club members told us to start them a $9.99. THIS GAVE ME GAS!
>
>But it works. We generally will get good prices for them. One very rare engine sold for $3500. Another for $2500.
>
>Basing your starting price on what you see on other eBay auctions is a wasted effort.
>
>If you want a minimum price your best option is to use a "Buy-It-Now". If it does not sell, you want TOO MUCH!
>
>Bob Macklin
>K5MYJ
>Seattle, Wa.
>"Real Radios Glow In The Dark"

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

19904. Re: [DrakeRadio] new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 02:56:07 UTC
From: Steve Wedge
Topic: 19896 Message: 19904

Actually, the PLATE and TUNE knobs fit to the flats on their respective shafts. The couplings from the shafts to the variable caps are likewise keyed to the flats.

I have found that improper setting of the neutralization will cause the PLATE tuning to be pushed to near the clockwise limit - which, despite the high number on the scale, is actually near minimum capacitance.

Many, many hams have changed their finals themselves, without checking and adjusting the neutralization. This cap is only a few picofarads and it's adjustment is fairly critical.

You can check by verifying whether or not maximum power out coincides with the dip in plate current. If the two don't, you'll need to adjust the neutralizing cap.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 7, 2014, at 7:44 PM, Al Parker <anchor@...> wrote:
>
> Hi,
> It could just be that the knob has been moved on the shaft. Nothing to
> worry about. The eqpt you've gotten is great stuff, glad you're
> enjoying it.
> Welcome to the list, we're a friendly bunch. It's customary to let
> folks know who you are by a first name & a call.
> I'm sure others will chime in with more thoughts.
> 73,
>
> Al, W8UT
> www.boatanchors.org
> www.hammarlund.info
>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 4/7/2014 5:59 PM, dmoes@... wrote:
> > Just joined the group since I just picked up a T-4XC, R-4c,mn-2000 tuner
> > and speaker with PS for the T04xc. it is in superb condition and after a
> > close visual inside and out I took the chance to plug it all in. I have
> > great results receives and transmits well and have been playing most of
> > the weekend including many great QSOs with good reports. just one minor
> > question about tuning.
> >
> > I am getting the typical output on all bands but the final tuning range
> > concerns me on 20-15-10m the Plate dip seems to be right near the top at

> > close to the 10 mark (minimum capacitance) 80-40 are both in the 6 and 8
> > range respectively.
> > is this normal or should I be looking for bad capacitors. I haven't
> > really looked at the schematic yet so just guessing some may have
> > drifted high with time.
> >
> > [Non-text portions of this message have been removed]
> >
>

[Non-text portions of this message have been removed]

19905. Re: new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 11:54:29 UTC
From: <dmoes@...>
Topic: 19896 Message: 19905

Boy I feel dumb hah hah I just had a quick gander at the neutralization and it does seem to be out a bit. the peak power is not quite at the dip on 10m. when I have time tonight I will make the adjustment ive done it on many rigs but none of these but see it is the manual I'm a little embarrassed that I didn't think to check it at the beginning as one should with first test of any lucky find.

without trying to read all the treads what are the chances of finding the correct accessory crystals for the WARC bands and for 28.0-28.5, not a real big need but if they are out there I may consider it. also it'd be nice to find a narrow filter for CW

Dave Moes VE3DVY

[Non-text portions of this message have been removed]

19906. CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 13:03:52 UTC
From: <rochep@...>
Topic: 19906 Message: 19906

I think I remember reading here that an ALIGNED R4 will have nice strong calibrator signals on all bands. Using a dummy load antenna, on 3.5 MHZ band my CAL signal is about 20 db over S9, but drops down to about S5 on the meter on 28.5 MHz band (of course peaking signal on pre-selector). It gets stronger as I go down in frequency, but it is only over S9 on 80 and 40 meters. I don't have a good signal generator and did poor mans "alignment" peaking the trimmers, but it did not make much difference. Ideas? Tubes TEST good on my lousy Superior tester, but ... ...

paul

[Non-text portions of this message have been removed]

19907. Re: [DrakeRadio] CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 14:02:18 UTC
From: Garey Barrell
Topic: 19906 Message: 19907

Paul -

The R-4 has a 12BZ6 in the Calibrator, a 'low noise IF' tube. All later R-4A/B models used the
12BA6, an 'RF amplifier' tube. Since the later models have stronger CAL signals at the higher
frequencies ... It's an easy swap, you have to swap the leads on Pins 2 and 7.

On the other hand, S-5 is plenty of signal on 10M!

Only a GOOD and calibrated signal generator, used properly, can answer your question definitively.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> I think I remember reading here that an ALIGNED R4 will have nice strong calibrator signals on all bands. Using a dummy load antenna, on 3.5 MHZ band my CAL signal is about 20 db over S9, but drops down to about S5 on the meter on 28.5 MHz band (of course peaking signal on pre-selector). It gets stronger as I go down in frequency, but it is only over S9 on 80 and 40 meters. I don't have a good signal generator and did poor mans "alignment" peaking the trimmers, but it did not make much difference. Ideas? Tubes TEST good on my lousy Superior tester, but ... ...
>
> paul
>

19908. Re: [DrakeRadio] R4B Alignment Observations

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 14:07:51 UTC
From: GRANT YOUNGMAN
Topic: 19804 Message: 19908

On Apr 7, 2014, at 4:10 PM, GRANT YOUNGMAN <nq5t@...> wrote:

>
> Maybe while the primer coats and finish paint are drying on the cabinet this week, I'll pull the notch assembly and tackle that last remaining issue. Even if the little rubber bushing that holds the spring has dried out and disintegrates, there's always hot glue :)

Sometimes when a task looks like it might be difficult it ends up being very easy.

I lifted the notch assembly out of the R4B. It was only necessary to temporarily remove V2 to allow it to slide out and up after removing the 3 screws that hold it in place. At that point, the adjustment spring is easy to get to even with fat fingers. (Somehow, I lost control of one of the screws, so my penalty for this good deed will be the fun of crawling around on the floor this morning with a flashlight and a magnet hunting it down).

The spring turned easily in the bushing, which is apparently threaded to match. Only a slight twist to align. I over did it the first time, but found there was no need to be aggressive with it to move the center position a small amount (about 1.5 divisions on the notch scale). In retrospect, it might have been as easy to adjust with a set of tweezers or even a couple of q-tips without pulling the assembly out of the radio. However, it wasn't obvious the bushing was threaded or that the spring would turn freely even if it was.

Grant NQ5T

19909. Re: CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 14:11:21 UTC
From: <rochep@...>
Topic: 19906 Message: 19909

Actually mine is an R4A, and late model at that. And it IS a 12BA6. I was not so much worried that S5 is not "loud" enough, but whether this lower reading means the sensitivity of my rig is low at these higher frequencies. Is the CAL on 10 meters with a properly aligned R4A supposed to peak over S9?

paul

[Non-text portions of this message have been removed]

19910. Re: [DrakeRadio] Re: CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 14:22:59 UTC
From: Garey Barrell
Topic: 19906 Message: 19910

Paul -

OK. The CAL strength varies considerably on different radios. It also varies considerably from
point to point on the same band.

I have to admit that I really haven't paid attention to it as I've never considered it a valid
test of the receiver's alignment. My R-4B just produced an S-8 CAL signal on 10M with the antenna shorted by the antenna switch.

I wouldn't worry about it!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Actually mine is an R4A, and late model at that. And it IS a 12BA6. I was not so much worried that S5 is not "loud" enough, but whether this lower reading means the sensitivity of my rig is low at these higher frequencies. Is the CAL on 10 meters with a properly aligned R4A supposed to peak over S9?
>
> paul
>
>

19911. Re: [DrakeRadio] Re: CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 14:29:27 UTC
From: <rochep@...>
Topic: 19906 Message: 19911

Thanks, just trying to worry about something that does not need worrying about. I was able to barely hear AP2NK this morning on 15 meters on my new Kenwood TS-590S and also on the R4A; I think is is fine.

paul

[Non-text portions of this message have been removed]

19912. RE: [DrakeRadio] Re: Just How Many

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 00:51:55 UTC
From: Doug Coffman
Topic: 19776 Message: 19912

Lane,

How are you implementing a digital receiver during the RF tune stage of the transmitter? Are you monitoring the transmitter while you key down or what? I haven't tried anything other that the tune for max Plate current, this sounds interesting.

You have mentioned your maximum plate current; what is your maximum plate current during the tune up procedure? During tune up, I am close to 400mA but on SSB voice peaks never reach 200mA. With that said, the plate current meter is not peak reading so it would never show the true value anyway.

Thanks for the info,

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of lane denune
Sent: Thursday, April 3, 2014 12:55 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: Just How Many

Thanks for all the input guys! Yes, I'm a stickler for the Re-Dip and have a fan top mounted over the PA and drawing warm air out. Generally I run the T4X at 100w output on CW and the air being exhausted is warm, not hot.The current is over 200 but under 275 key down. I have also found that adjusting the RF Tune for max signal into a digital receiver gets that important first tuning adjustment right on. 73 from Lane de n8aft

---
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Quick and Simple Internet Access
http://www.pdswireless.com

[Non-text portions of this message have been removed]

19913. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-07 21:03:17 UTC
From: Doug
Topic: 19859 Message: 19913

Dave,

Do you not have access to any?

Doug - N9XTF

Sent from my iPhone

> On Apr 7, 2014, at 16:39, "n1ohn@..." <n1ohn@...> wrote:
>
> Thanks all!!! I suspected the same thing that someone just tossed in what they had thinking it was OK lol. OK now on the hunt for some 2w 47ohm resistors :(
>
> Dave
>
> Sent from Yahoo Mail on Android
>
> [Non-text portions of this message have been removed]
>
>

PDSWireless
Quick and Simple Internet Access
http://www.pdswireless.com

[Non-text portions of this message have been removed]

19914. Re: [DrakeRadio] Re: new to drake and happy! minor issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 15:21:49 UTC
From: Richard Knoppow
Topic: 19896 Message: 19914

```
----- Original Message -----
From: <dmoes@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, April 08, 2014 4:54 AM
Subject: [DrakeRadio] Re: new to drake and happy! minor
issue

> Boy I feel dumb hah hah I just had a quick gander at
> the neutralization and it does seem to be out a bit. the
> peak power is not quite at the dip on 10m. when I have
> time tonight I will make the adjustment ive done it on
> many rigs but none of these but see it is the manual I'm
> a little embarrassed that I didn't think to check it at
> the beginning as one should with first test of any lucky
> find.
>
> without trying to read all the treads what are the
> chances of finding the correct accessory crystals for the
> WARC bands and for 28.0-28.5, not a real big need but if
> they are out there I may consider it. also it'd be nice
> to find a narrow filter for CW
>
>
>
> Dave Moes VE3DVY
>
I got crystals from International Crystals for my R4B
and have gotten others for Collins receivers. They were
perfect. There are some other sources but International is
very reliable.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...
```

19915. Re: [DrakeRadio] Re: cw filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 15:37:38 UTC
From: Chgypsy@...
Topic: 19915 Message: 19915

1oldlens1@... writes:

also it'd be nice
> to find a narrow filter for CW
Without checking the subject trend, there are a couple of TR4 ones on Epay at the moment, if you really want one that bad. Also vaguely remember QTH, could be the same ones. Carl wd8nhk

[Non-text portions of this message have been removed]

19916. Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 15:16:29 UTC
From: Damien Mannix
Topic: 19916 Message: 19916

Hi all,

Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

73 to all,

Damien G3XER

[Non-text portions of this message have been removed]

19917. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:14:05 UTC
From: Garey Barrell
Topic: 19916 Message: 19917

Damien -

Welcome. Don't worry, most folks on here are NOT experts, but that does NOT mean that they can't contribute! Contributions take many forms, sometimes only loosely related to Drake radio
gear!! :-) I believe the only qualifying requirement is that you enjoy using Drake gear. It doesn't hurt if you believe it is the BEST radio equipment, but is not a requirement.

Welcome 'back' to ham radio and the enjoyment of Drake!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Damien Mannix wrote:
> Hi all,
>
> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.
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> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.
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> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.
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> In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!
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> Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.
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> 73 to all,
>
> Damien G3XER
>

19918. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:16:12 UTC
From: Steve Wedge
Topic: 19916 Message: 19918

Welcome to the fold, Damien!

Noone is too inexperienced to take part here: we all learn from each other. It's a great group here and you will learn a lot!

73,

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 8, 2014, at 11:16 AM, Damien Mannix <damienmannix@...> wrote:
>
> Hi all,
>
> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.
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>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19919. Re: [DrakeRadio] Re: CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:20:36 UTC
From: Steve Wedge
Topic: 19906 Message: 19919

Remember that the calibrator is generating a 100 kHz square wave and you are actually listening to the various harmonics of that signal. As you go up on frequency, the power in the higher harmonics decreases.

If you have access to a signal generator, input a 50 uv signal at 28.8 MHz and you should be at or near S-9.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 8, 2014, at 10:29 AM, <rochep@comcast.net> wrote:
>
> Thanks, just trying to worry about something that does not need worrying about. I was able to barely hear AP2NK this morning on 15 meters on my new Kenwood TS-590S and also on the R4A; I think is is fine.
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19920. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:23:25 UTC
From: Joe - W7RKN
Topic: 19916 Message: 19920

Tossing my 2 cents worth in here...Our group is the only ham group I can honestly say, I have never seen any attacks on...No egos here.....just knowledgeable and helpful participants....A breath of fresh air, in a jungle of ham groups that the testosterone levels push the competition on who can discredit who's knowledge.

No question ever asked here, is considered too small to start a session, and multiple views/ideas on solving an issue, are welcomed, rather than scorned.

Welcome aboard!

Joe Wolfe - W7RKN

----- Original Message -----
From: "Steve Wedge" <w1es1982@...>
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

> Welcome to the fold, Damien!
>
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> other. It's a great group here and you will learn a lot!
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> 73,
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> Sent from my iPhone; please excuse any typographical malaprops.
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>> moment is an antenna! So the most important thing comes last? Blame the
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>> and even a Drake 7075 Mic'.
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>>
>> [Non-text portions of this message have been removed]
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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19921. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:33:45 UTC
From: Garey Barrell
Topic: 19916 Message: 19921

Joe -

You have obviously overlooked Jim's unwarranted attacks on me!!! Constant harassment. I demand
sympathy and that he be reprimanded by the list owner.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Joe - W7RKN wrote:
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>

19922. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 16:33:03 UTC
From: Don Cunningham
Topic: 19916 Message: 19922

Damien,
Welcome back to ham radio and Drakes. As others have already said, you will find this a welcoming group, and even dumb as I am, they let me contribute once in a while to things. I too am a consumate rag chewer and hope to work you one day on the air. I have a room FULL of gear, and growing daily literally, so we should have NO trouble, HI.

Again, welcome to the group, and enjoy those Drakes. You have a fine start again. Antenna is next, but don't wait too long on the warm weather or it won't work properly. I put up my beam this winter between storms quite literally but it did warm some!!!!!!!
73,
Don, WB5HAK
On 4/8/2014 10:16 AM, Damien Mannix wrote:
>
> Hi all,
>
> Garey kindly invited me to join and I am very pleased to do so though
> a little concerned that I have far too little knowledge to contribute
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> Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C,

> MS4, MN2700 and even a Drake 7075 Mic'.
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> Finally I should mention that I have been fortunate enough to make a
> few contacts recently when on holiday in the Bahamas with the
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> 73 to all,
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> Damien G3XER
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>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19923. Re: [DrakeRadio] TR4B parasitic resistor??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 17:07:08 UTC
From: n1ohn@yahoo.com
Topic: 19859 Message: 19923

Hi all

Thanks for all your help I really appreciate all the offers in the resistors!!! Nice to see so many helpful people in the group!!! I was lucky to find two of the resisters in my box WOW!! I also bought a used coil from Dave and rewound my burnt coil so I think I'm good in that department :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19924. Antenna and RF Alignment in R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 17:15:23 UTC
From: <rochep@...>
Topic: 19924 Message: 19924

I have a question about the Alignment procedure for a late model R4A. In the Antenna and RF Alignment section (Section E) the first step is to place a 10K resistor from side rotor contact of S5C to ground and connect the corresponding contact on S5D to the B+ line. What is the point of doing these steps? I understand removing the antenna (but why a 68 ohm resistor instead of 50 ohm?), but how would “alignment” be affected WITHOUT doing step #1 in the Section E alignment?

And am I reading it correctly that B+ is hooked directly to a contact on S5D?

paul

[Non-text portions of this message have been removed]

19925. Re: [DrakeRadio] TR-4CW rit PLATE AMP METER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 17:17:19 UTC
From: Garey Barrell
Topic: 19898 Message: 19925

Dave -

R45 is the meter shunt, and if it opens up, bad things happen to the meter!! The resistor directly above it is the 'fuse' (R127) for the +250 VDC bus.

Just a guess, but I suspect the BIAS supply failed, keying the PA stage, which drew as much current as it could get from the power supply. This overheated R45, and a PA tube that finally
shorted due to overload drew too much current from the +250 V bus, frying R127.

R127 is there to protect the wiring harness from this type of failure. R127 is 27 ohm, 1/2W.
Do NOT replace with a larger resistor!! It really needs to be a carbon composition type for maximum protection. A melted wiring harness = donor radio.

Also check resistors R42, R43, R44, R93, R121, 167, R176, R177 and R178 for value and condition. A general examination of the entire radio would be a good idea, looking for any burned or otherwise damaged components.

The meter is the same in ALL TR-4/C radios. NOT the same as the TR-3. Sounds like it's probably been killed.

R45 should also be carbon comp, or ceramic comp, or 'flameproof' wirewound for best results.
Once R45 and the meter have been replaced, you'll need to set and measure the current drawn by
the PA at idle, then select a resistor for R13* that makes the meter read 0.100A.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> HELLO ALL,
> I GOT MY HANDS ON A TR-4CW rit, HAD MY FIRST ONE IN THE MID 80'S. I WAS HAPPY TO GET ANOTHER ONE IN GREAT CONDITION. IT ALL SEEMED TO GOOD TO BE TRUE. THEN I STARTED TO MAKE IT MINE. YOU KNOW, CLEAN IT UP AND CHECK IT OUT. WELL I FOUND THE R45 BURNED PRETTY WELL AND WHATEVER RESISTOR IS DIRECTLY ABOVE IT WAS CRACKED. IT FELL APART DURING REMOVAL. IT IS TAKING TO MUCH CURRENT TO SET THE PLATE AMP METER TO .100. I HAVE CHECKED MOST EVERYTHING I CAN DREAM UP AND HAVE ORDERED THE SERVICE PART LOCATOR CD.
> UPON METER INSPECTION I NOTICED THE COIL OF THE AMP METER IS DARK, ALMOST BLACK. THE METER OTHER THAN NOT READING CORRECTLY IS SLUGGISH AND DOESNT RETURN TO ZERO EASILY. COMPARING THE COILS OF THE TWO METERS, THE S METER AND THE AMP METER I NOTICE THE S METER IS NICE AND GREEN. QUESTION??? IS THE COIL IN MY AMP METER BURNED UP?? DOES ANYONE HAVE ONE

I CAN GET?
> DAVID, KX7C
>

19926. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 17:29:19 UTC
From: Dan Galligan
Topic: 19916 Message: 19926

Damien
I might add, that I am likely one of the least experienced, at repair work, here on the list. A couple of years back, I ran into a unique situation, where I did something stupid, and burned up a friend's R4C, which he was wanting to sell. I wound up paying full price, for the radio I had broken. Since my repair knowledge was very limited, and certainly I was more familiar, and comfortable, working in a transmitter, than a receiver, I suggested that since it was otherwise a seemingly good radio, that maybe I ought to part it out, in attempt to get as much of my cost, back out of it, as I could. I am color blind, and wire color codes, always frightened the heck out of me. It's not that I wanted to part it out, but my wallet was overtaking my thought process, at that point.
After a proper chastising, from a few of the good members here, and encouragement from others, who were convinced that they could help guide me through it, I tackled the issue. It turned out to need a transformer, and some diodes in the PS. AND, gave me enough confidence, that I tackled two other receivers, shortly after that.
Now, I sold the receiver, for about what I paid for it (I think I sold it for $10 less than I paid), and really only lost the cost of the parts that I broke. A pretty decent deal, since it kept a very nice R4C in use. But, the best part, was when the fellow who purchased it, called back, and said that he was using it, and liked the receive so much, that he decided to try comparing it, with his Kenwood TS-950SDX. When he did so, he found the R4C, to be a superior receiver to both it, and an Icom IC-756ProIII.
One of the other receivers that I tackled, because of the wonderful guidance I received here, was a Collins 75A-4. When I sold it, the purchaser, a Collins Collector, said it was the best receiver in his shack, at the time. The third, is the Hammarlund HQ-150, that currently graces my shack, as my only remaining tube type receiver, in everyday use.
I have THIS GROUP, to thank, for the help and encouragement. My best advice is this. If/when you do any work, on your Drakes, please, take AMPLE NUMBERS of good resolution photos, and post descriptions of your problems, solutions, and results here. You will have access to an invaluable resource, in this group.
Even though I have recently sold most all of my Drake equipment, with the rest soon to follow, as well as most of my Collins gear, I will remain a member here, as this is, as mentioned, the finest group, of it's type, available, anywhere.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 8, 2014, at 10:16, Damien Mannix <damienmannix@...> wrote:
>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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19927. TX4B 100v or 220v AC-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 18:07:54 UTC
From: <n1ohn@...>
Topic: 19927 Message: 19927

Hello all!

I'm looking for a ac-4 for my TX4B my question is does the transmitter gain anything or lose anything from a 110v or 220v AC-4? Should I strive for the 220v AC-4 version or is the 110v version OK?

Dave

[Non-text portions of this message have been removed]

19928. Re: [DrakeRadio] Antenna and RF Alignment in R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 18:17:48 UTC
From: Garey Barrell
Topic: 19924 Message: 19928

Paul -

This is because the inductors in this area are 'critically coupled', and when adjusting one, the
other must be detuned to prevent interaction. The two 10k resistors are essentially just connected across the Primaries of T3 and T4, spoiling the 'Q'.

Some just peak the two coils alternately, but this can result in a 'double-hump' passband or a
single 'hump' rather than the single wide passband desired.

Yes, the 'other' end of T3 is connected to the +150 bus. And the 'other' end of T4 is connected
to ground.

I have no idea why the 68 ohm resistor. Probably what the tech had on the bench. NOT critical,
within reason.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

rochep@... wrote:
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>
>
> And am I reading it correctly that B+ is hooked directly to a contact on S5D?
>
>
>
> paul
>
>

19929. Re: [DrakeRadio] TX4B 100v or 220v AC-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 18:28:38 UTC
From: Garey Barrell
Topic: 19927 Message: 19929

Dave -

The standard 120 VAC AC-4 is fine. The 240V version is for Europe and other countries that have
a 240 VAC primary power.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Hello all!
>
> I'm looking for a ac-4 for my TX4B my question is does the transmitter gain anything or lose anything from a 110v or 220v AC-4? Should I strive for the 220v AC-4 version or is the 110v version OK?
>
>
> Dave
>

19930. Re: [DrakeRadio] TX4B 100v or 220v AC-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 18:39:17 UTC
From: n1ohn@yahoo.com
Topic: 19927 Message: 19930

Thanks Garey!

That was my assumption but it being a transmitter and knowing how amps performed better on 220 I thought I better ask :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19931. Re: [DrakeRadio] TX4B 100v or 220v AC-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 18:52:58 UTC
From: Garey Barrell
Topic: 19927 Message: 19931

Dave -

Amps draw ten to twenty times more current from the power line than the T-4X(any).

Ohm's Opinion clarifies this. P = E x I. For a given device twice the voltage only takes half
the current for the same amount of power.

The problem with heavy current devices such as amplifiers is that for a given wire size and length the voltage drop (lost in the wire) is doubled at 120 over 240 VAC power.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

n1ohn@... wrote:
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> That was my assumption but it being a transmitter and knowing how amps performed better on 220 I thought I better ask :)
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> Dave
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19932. Re: [DrakeRadio] TX4B 100v or 220v AC-4?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 19:10:06 UTC
From: n1ohn@yahoo.com
Topic: 19927 Message: 19932

Thanks Garey!!

I wasn't really trying to compare it to a amplifier in the traditional way. With that said I never put much thought in the voltage drop in a amplifier until you just squared me away .... thank you!!!!

Dave
Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

19933. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 23:21:46 UTC
From: keith evans
Topic: 19916 Message: 19933

Hello Damien,

You will find there are quite a few UK Drake fanatics on this list, they may well not be often seen,

But they read the “posts”

Welcome to a very nice facility run by Gary, a lot of very useful info appears.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Damien Mannix
Sent: 08 April 2014 16:16
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Damien G3XER delighted to join the group

Hi all,

Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

73 to all,

Damien G3XER

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19934. Drake 2-C Noise Blanker (2-NB) physical Measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 23:53:47 UTC
From: <k6ctw@...>
Topic: 19934 Message: 19934

All - I'm hoping that someone on the list has a Drake 2-C with the 2-NB installed. I'm looking for a few simple dimensions. These are:
1 - Overall HxWxD of the enclosure
2 - Distance from the left side, bottom edge of the enclosure, to the top of the pins on the
connector
3 - Distance from the back/front of the enclosure to the same top pin (the two that are closer together) closest to that edge.
I already have the dimensions of the 4-pin connector as it is the same as is on the 2-AC crystal calibrator right?

Thanks in advance for any assistance. 73 - ken

[Non-text portions of this message have been removed]

19935. TR-4C Receiver Problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-08 23:57:15 UTC
From: <f_canuso@...>
Topic: 19935 Message: 19935

When I powered up my TR-4C today the receiver audio came on normally. However, after a couple of minutes a thumping noise was heard in the speaker and the S meter needle moved quickly to the extreme right side of the scale and got stuck in that position. The receiver continued to work normally (signals could be heard at a normal audio level) but the thumping noise continued to be heard intermittently.

I removed the meter assembly, freed up the S meter needle by simply removing the top of the meter case and reinstalled the meters. Upon powering up the radio, the same thing occurred as described above. Any suggestions regarding the cause and fix for this problem would be greatly appreciated.

Thanks and 73,
Tony (N2ATB)

[Non-text portions of this message have been removed]

19936. Re: [DrakeRadio] TR-4CW rit PLATE AMP METER

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 00:47:50 UTC
From: David Nichols
Topic: 19898 Message: 19936

I BOUGHT THIS FROM A GUY OVER IN IDAHO A FEW WEEKS AGO. IT LOOKS GREAT AND NOT JUST FOR ITS AGE. IT LOOKS CLEAN INSIDE AND OUT. I EVEN HAD SEVERAL QSO'S WITH IT BEFORE I DECIDED TO LOOK DEEPER INTO IT. I HAD TO SEE HOW IT WORKED BEFORE I COULD GET AN IDEA OF ANY PROBLEMS. I HAVE NEW METERS ON THE WAY THANKS TO DAVID AND HOPE I WILL SEE A MARKED DIFFERENCE WITH IT. I ALSO HAVE THE CORRECT RESISTOR FOR R45 ON THE WAY. THE OTHER PARTS LOOK OK AND I DONT SEE ANY EVIDENCE OF A CATASTROPHIC FAILURE. MY AC-4 HAS THE HEATH KIT SHOP BOARD IN IT AND CHECKS OUT RIGHT. IF I HADNT BEEN USING MY MAGNIFIER WITH THE LIGHT UNDER IT I WOULD HAVE NEVER SEEN THE CRACK IN R127 BUT I DIDNT HAVE ANY TROUBLE SEEING THE BURN ON R45. THE FUN PART MAY BE FINDING THE CORRECT VALUE FOR R13. I HAVENT MENTIONED SOMEONE INSTALLED A JUMPER ON THE SLIDE SWITCH FOR R13. I TOOK THE SWITCH APART AND DEOXED IT, THE SILVER LOOKS CLEAN NOW AND IT IS WORKING FINE. WHERE IS THE BEST SPOT TO
MEASURE THE IDLE CURRENT, BEFORE R45, OR FURTHER BACK? OR JUST BEFORE THE METER SAY ON THE SLIDE SWITCH WHERE R13 GOES?

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 8, 2014 10:17 AM
Subject: Re: [DrakeRadio] TR-4CW rit PLATE AMP METER

Dave -

R45 is the meter shunt, and if it opens up, bad things happen to the meter!! The resistor directly above it is the 'fuse' (R127) for the +250 VDC bus.

Just a guess, but I suspect the BIAS supply failed, keying the PA stage, which drew as much current as it could get from the power supply. This overheated R45, and a PA tube that finally
shorted due to overload drew too much current from the +250 V bus, frying R127.

R127 is there to protect the wiring harness from this type of failure. R127 is 27 ohm, 1/2W.
Do NOT replace with a larger resistor!! It really needs to be a carbon composition type for maximum protection. A melted wiring harness = donor radio.

Also check resistors R42, R43, R44, R93, R121, 167, R176, R177 and R178 for value and condition. A general examination of the entire radio would be a good idea, looking for any burned or otherwise damaged components.

The meter is the same in ALL TR-4/C radios. NOT the same as the TR-3. Sounds like it's probably been killed.

R45 should also be carbon comp, or ceramic comp, or 'flameproof' wirewound for best results.
Once R45 and the meter have been replaced, you'll need to set and measure the current drawn by
the PA at idle, then select a resistor for R13* that makes the meter read 0.100A.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> HELLO ALL,
> I GOT MY HANDS ON A TR-4CW rit, HAD MY FIRST ONE IN THE MID 80'S. I WAS HAPPY TO GET ANOTHER ONE IN GREAT CONDITION. IT ALL SEEMED TO GOOD TO BE TRUE. THEN I STARTED TO MAKE IT MINE. YOU KNOW, CLEAN IT UP AND CHECK IT OUT. WELL I FOUND THE R45 BURNED PRETTY WELL AND WHATEVER RESISTOR IS DIRECTLY ABOVE IT WAS CRACKED. IT FELL APART DURING REMOVAL. IT IS TAKING TO MUCH CURRENT TO SET THE PLATE AMP METER TO .100. I HAVE CHECKED MOST EVERYTHING I CAN DREAM UP AND HAVE ORDERED THE SERVICE PART LOCATOR CD.
> UPON METER INSPECTION I NOTICED THE COIL OF THE AMP METER IS DARK, ALMOST BLACK. THE METER OTHER THAN NOT READING CORRECTLY IS SLUGGISH AND DOESNT RETURN TO ZERO EASILY. COMPARING THE COILS OF THE TWO METERS, THE S METER AND THE AMP METER I NOTICE THE S METER IS NICE AND GREEN. QUESTION??? IS THE COIL IN MY AMP METER BURNED UP?? DOES ANYONE HAVE ONE I CAN GET?
> DAVID, KX7C
>

[Non-text portions of this message have been removed]

19937. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 01:50:34 UTC
From: Jim Shorney
Topic: 19916 Message: 19937

Boy, you really are a constant attention-seeker, aren't you? We all know that
you really love it, so have another cup of coffee and light up those tubes.

73

-Jim
NU0C

On Tue, 08 Apr 2014 12:33:45 -0400, Garey Barrell wrote:

>Joe -
>
>You have obviously overlooked Jim's unwarranted attacks on me!!! Constant harassment. I
demand
>sympathy and that he be reprimanded by the list owner........
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Joe - W7RKN wrote:
>> Tossing my 2 cents worth in here...Our group is the only ham group I can
>> honestly say, I have never seen any attacks on...No egos here.....just
>> knowledgeable and helpful participants....A breath of fresh air, in a jungle
>> of ham groups that the testosterone levels push the competition on who can
>> discredit who's knowledge.
>>
>> No question ever asked here, is considered too small to start a session, and
>> multiple views/ideas on solving an issue, are welcomed, rather than scorned.
>>
>> Welcome aboard!
>>
>> Joe Wolfe - W7RKN
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19938. 2B question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 02:11:03 UTC
From: <kg0mn@...>
Topic: 19938 Message: 19938

I need to ask a question before I start looking for the problem. I have a very nice inside and out 2B with Q-multiplier that does not seem to do a very good job of muting itself when used my Apache and Dowkey. From everyone's past experience is this usually related to :

A. Bad or weak tube
B. out of spec components
C. cold solder joint
Tnx and 73
KG0MN

[Non-text portions of this message have been removed]

19939. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 13:46:30 UTC
From: Garey Barrell
Topic: 19916 Message: 19939

I gotta say something or you just hide over there in your room with your vast collection of vintage gear and never say anything any more!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
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> you really love it, so have another cup of coffee and light up those tubes.
>
> 73
>
> -Jim
> NU0C
>
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>
>> Joe -
>>
>> You have obviously overlooked Jim's unwarranted attacks on me!!! Constant harassment. I demand
>> sympathy and that he be reprimanded by the list owner........
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> <www.k4oah.com>
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>> Joe - W7RKN wrote:
>>> Tossing my 2 cents worth in here...Our group is the only ham group I can
>>> honestly say, I have never seen any attacks on...No egos here.....just
>>> knowledgeable and helpful participants....A breath of fresh air, in a jungle
>>> of ham groups that the testosterone levels push the competition on who can
>>> discredit who's knowledge.
>>>
>>> No question ever asked here, is considered too small to start a session, and
>>> multiple views/ideas on solving an issue, are welcomed, rather than scorned.
>>>
>>> Welcome aboard!
>>>

>>> Joe Wolfe - W7RKN
>>>
>>>
>>
>
> --
> Ham Radio NU0C
> Lincoln, Nebraska, U.S.S.A.
> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!
>
> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."
>
> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
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> Yahoo Groups Links
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19940. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 13:45:13 UTC
From: Claude Welschbillig
Topic: 12987 Message: 19940

Hello Garey,

How do you do?

It's been some time that I haven't contacted you as I didn't do anything on my Drake stations.

Meanwhile I have a new DXCC antenna and some modern rigs but still a lot of tube transceivers.

I got a TR-4C on ebay. The transmitter sections is clearly better than my TR-4 but it has got some other problems which I'm trying to check...

First there is some problem with the frequencies:

The RX frequencies as well as the TX frequencies for several bands are completely wrong:

15 m 21 MHz gives 21.5X MHz as well as TX and RX
10m 28 MHz gives 28.5X (RX and TX)
28.5 MHz gives 29.0X (RX and TX)
whereas 29.1 MHz is correct!!

I changed the crystals,it is not them. Did you come upon such a problem and do you have an idea what it could be?

Greetings from Carcassonne

Claude

LX1EX / F4VPW

[Non-text portions of this message have been removed]

19941. Re: [DrakeRadio] 2B question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 14:00:03 UTC
From: Garey Barrell
Topic: 19938 Message: 19941

This is almost always a leaky capacitor.

The 2-B is muted by increasing the AVC voltage to about -18 VDC, cutting off all AVC controlled
tubes. This is about 10 times the normal, no signal AVC voltage. The voltage increase is accomplished by inserting a bias into the 'ground' end of the AVC circuit. Therefore the MUTE
voltage can increase or decrease instantaneously rather than waiting for the time delay capacitor to charge or discharge.

I'd start by checking the voltage at Pin 1 of V8 (-19 VDC). If low, sub the 8BN8. If still low,
proceed through C69, C80, R51 to find the problem. This is a very high impedance circuit, so it
doesn't take much to drag that voltage down. One obscure problem that has shown up is leakage
from the resistive element of R50 to the case (ground).

Let us know what you find!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kg0mn@... wrote:
> I need to ask a question before I start looking for the problem. I have a very nice inside and out 2B with Q-multiplier that does not seem to do a very good job of muting itself when used my Apache and Dowkey. From everyone's past experience is this usually related to :
>
> A. Bad or weak tube
> B. out of spec components
> C. cold solder joint
> Tnx and 73
> KG0MN
>

19942. Re: [DrakeRadio] T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 15:37:16 UTC
From: David E. Rudd, CET WCM
Topic: 19819 Message: 19942

Jim,

I have the frequency dial.

David

Sent from my iPhone AI4JI

> On Apr 5, 2014, at 20:23, WB6TNF <handyjimbo@...> wrote:
>
> Dave, I am in need of the round plastic frequency dial for a TR-3 (same as a TR-4).
> Jim - WB6TNF
>
> On Saturday, April 5, 2014 4:58 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:
>
> Hi Dave,
>
> Give me a day or two to check my inventory.
>
> This is for the group as well...
> I have acquired a dear friend of mine's estate. I have a huge lot of spare parts, a couple cabinets and 8 boxes full of repair parts and tubes. I also have several complete sets. Here are the sets that I currently have:
>
> Drake ...
> Qty 5 - TR-4 xcvr
> Qty 4 - TR-4C xcvr
> Qty 4 - TR-4Cw xcvr
> Qty 4 - T-4XC xmtr
> Qty 1 - R-4B rcvr
> Qty 2 - R-4C rcvr with upgrades
> Qty 1 - R-2C rcvr
> Qty 1 - L-4B with P/S
> Qty 2 - L-4B without P/S
> Qty 2 - RV-4 remote VFO
> Qty 2 - RV-4C remote VFO
> Qty 4 - MS-4 speaker
>
> Swan 700cx xcvr with P/S
>
> National 109 rcvr and matching speaker
>
> Heathkit DX-40 with matching VF-1 VFO
>
> Heathkit DX-40
>

> Lots of Sure desk mics.
>
> I have cleaned and aligned a TR-4Cw with the matching speaker and power supply and sold it to a friend of mine at work. I'm a communications systems engineer for Motorola in Atlanta. I maintain the big public safety systems and 911 centers.
>
> Anyhow, he is very pleased with the rig. These all look nearly new. Little or no signs of wear.
>
> All I can tell you is that my friend and his father had these up in NY. I'm fairly sure they had an electronics business up there and probably sold Ham Radio gear.
>
> I will be offering this equipment for sale, and spare / repair parts as well. I remember seeing like 20 new relays, a drawer full of the red front lamps and retaining clips, blue plexiglass, pots, filters, circuit boards, knobs, feet, upgrade kits, tons of stuff!
>
> If anyone in the group is looking for specific items, let me know what you need and I'll see if I have it or not.
>
> Thanks for having a look.
>
> David E. Rudd, CET WCM
> de AI4JI
>
> Sent from my iPhone AI4JI
>
>> On Apr 5, 2014, at 19:31, <n1ohn@...> wrote:
>>
>>
>> Hello all.
>>
>> I just received my TX4B from EBay today and it needs a new Choke Plate (PC-1,2) any one know were I can find one lol?
>>
>> Thanks!
>> Dave
>
>
>
>

[Non-text portions of this message have been removed]

19943. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 15:46:03 UTC
From: Garey Barrell
Topic: 12987 Message: 19943

Hello Claude -

I'm not sure I understand your problem.

The coverage of the receiver and transmitter are both controlled by one crystal.

The 80 and 20M bands do not require ANY crystal as they are generated by their respective 'difference' and 'sum' mixer products.

The CAR OSC runs at 9.000 MHz. The PTO varies from 4.9 to 5.5 MHz. So if the PTO is set to 5.000, the mixer outputs are at 9 + 5 = 14 MHz., and 9 - 5 = 4 MHz.

The other bands require an intermediate mixer with a crystal LO. For 40M, the 5.500 PTO is mixed with 21.5 MHz, resulting in an intermediate frequency of 16 MHz. This is then mixed with
the 9.000 MHz CAR OSC for a 7.000 MHz output.

For 15M, the 5.5 PTO is mixed with 35.5 MHz to produce 30 MHz. Mixed with 9.000 for 21.000 MHz
output.

For 10M, the 5.5 PTO is mixed with 42.5, 43.0 or 43.6 MHz to produce 42.5 - 5.5 = 37 - 9.00 =
28.000; 43 - 5.5 = 37.5 - 9 = 28.500; 43.6 - 5.5 = 38.100 - 9.00 = 29.1 MHz.

It sounds like either the crystals are wrong, or in the wrong sockets. They go in order from
the left edge of the chassis, i.e., 21.5, 35.5, 42.5, 43.0 and 43.5 MHz.

If the PTO tunes from 4.9 to 5.5 MHz, which it obviously does since the 80 and 40M bands are
correct, then the only other factor is the frequency of the crystal oscillator.

??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Claude Welschbillig wrote:
> Hello Garey,
>
> How do you do?
>
> It's been some time that I haven't contacted you as I didn't do anything on my Drake

stations.
>
> Meanwhile I have a new DXCC antenna and some modern rigs but still a lot of tube transceivers.
>
> I got a TR-4C on ebay. The transmitter sections is clearly better than my TR-4 but it has got some other problems which I'm trying to check...
>
> First there is some problem with the frequencies:
>
> The RX frequencies as well as the TX frequencies for several bands are completely wrong:
>
> 15 m 21 MHz gives 21.5X MHz as well as TX and RX
> 10m 28 MHz gives 28.5X (RX and TX)
> 28.5 MHz gives 29.0X (RX and TX)
> whereas 29.1 MHz is correct!!
>
> I changed the crystals,it is not them. Did you come upon such a problem and do you have an idea what it could be?
>
> Greetings from Carcassonne
>
> Claude
>
> LX1EX / F4VPW
>

19944. Re: [DrakeRadio] Drake 2-C Noise Blanker (2-NB) physical Measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 17:25:40 UTC
From: Garey Barrell
Topic: 19934 Message: 19944

Ken -

Have you found what you need?? I have a 2-NB but it's not readily to hand. If no results yet,
lemme know and I'll dig it out!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k6ctw@... wrote:
> All - I'm hoping that someone on the list has a Drake 2-C with the 2-NB installed. I'm looking for a few simple dimensions. These are:
> 1 - Overall HxWxD of the enclosure
> 2 - Distance from the left side, bottom edge of the enclosure, to the top of the pins on the
> connector
> 3 - Distance from the back/front of the enclosure to the same top pin (the two that are
> closer together) closest to that edge.
> I already have the dimensions of the 4-pin connector as it is the same as is on the 2-AC crystal calibrator right?
>
> Thanks in advance for any assistance. 73 - ken
>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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19945. Re: [DrakeRadio] 2B question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 20:17:06 UTC
From: K4GM-George
Topic: 19938 Message: 19945

My answer is "D" : " The standby switch is in the receive position"
. Or maybe the switch is bad or someone has shorted the contacts so
that the normally open contacts in the standby mode are actually closed
as in the receive mode. I have a 2C now and it has been quite a while
since I used my 2B but I would bet that either the dow key relay is not
opening the contacts on transmit or somewhere there is a something
causing the radio to stay in receive mode when you transmit.

73, George K4GM

On 4/8/2014 10:11 PM, kg0mn@... wrote:
>
> I need to ask a question before I start looking for the problem. I
> have a very nice inside and out 2B with Q-multiplier that does not
> seem to do a very good job of muting itself when used my Apache and
> Dowkey. From everyone's past experience is this usually related to :
>
> A. Bad or weak tube
> B. out of spec components
> C. cold solder joint
> Tnx and 73
> KG0MN
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19946. TR4C s meter adjustment pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 20:29:52 UTC
From: <tcgreiner2@...>
Topic: 19946 Message: 19946

Need the value for R187 trimmer pot on the TR4C. I only have an 8 1/2 x 11 sheet for the schematic. Too small to read. I have a manual coming with the 11 x 17 foldout but would like to get a jump on this repair. Any help on where to buy a new trimmer pot? Thanks...Tom Greiner...WT8X

[Non-text portions of this message have been removed]

19947. Re: [DrakeRadio] TR4C s meter adjustment pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 20:55:23 UTC
From: Al Parker
Topic: 19946 Message: 19947

Hi Tom,
It's 1k I've got a digi-manual I can send you if you want, it's
readable on screen.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/9/2014 4:29 PM, tcgreiner2@... wrote:
>
> Need the value for R187 trimmer pot on the TR4C. I only have an 8 1/2 x
> 11 sheet for the schematic. Too small to read. I have a manual coming
> with the 11 x 17 foldout but would like to get a jump on this repair.
> Any help on where to buy a new trimmer pot? Thanks...Tom Greiner...WT8X
>
> [Non-text portions of this message have been removed]
>
>

19948. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 20:56:47 UTC
From: Jim Shorney
Topic: 19916 Message: 19948

Obi-Wan Barrell, I keep my mouth shut on the tube gear. You are clearly the Jedi Master there. I come out of the woodwork for 7-Line comments (and responses to unsubstantiated allegations). But I'm usually watching. Just ignore those black helicopters.

I was distracted for a few days by VK9MT. And the W1AW obsession continues. This will go down as the "lost year" WRT anything really productive getting done.

Oh, and my soldering station went down Sunday. Had to order a new heater from Mouser. Ever seen anyone use a Weller 140 Watt gun on a TR-7 circuit board? So now you have to put up with me until my parts come in...

So what's new with you? :D

73

-Jim
NU0C

On Wed, 09 Apr 2014 09:46:30 -0400, Garey Barrell wrote:

>I gotta say something or you just hide over there in your room with your vast collection of
>vintage gear and never say anything any more!
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Jim Shorney wrote:
>> Boy, you really are a constant attention-seeker, aren't you? We all know that
>> you really love it, so have another cup of coffee and light up those tubes.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Tue, 08 Apr 2014 12:33:45 -0400, Garey Barrell wrote:
>>
>>> Joe -
>>>
>>> You have obviously overlooked Jim's unwarranted attacks on me!!! Constant harassment. I

demand
>>> sympathy and that he be reprimanded by the list owner........
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Joe - W7RKN wrote:
>>>> Tossing my 2 cents worth in here...Our group is the only ham group I can
>>>> honestly say, I have never seen any attacks on...No egos here.....just
>>>> knowledgeable and helpful participants....A breath of fresh air, in a jungle
>>>> of ham groups that the testosterone levels push the competition on who can
>>>> discredit who's knowledge.
>>>>
>>>> No question ever asked here, is considered too small to start a session, and
>>>> multiple views/ideas on solving an issue, are welcomed, rather than scorned.
>>>>
>>>> Welcome aboard!
>>>>
>>>> Joe Wolfe - W7RKN
>>>>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

19949. Re: [DrakeRadio] TR4C s meter adjustment pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 21:36:51 UTC
From: Garey Barrell
Topic: 19946 Message: 19949

Tom -

What's the s/n on the unit? I can send you the correct schematic.

R187 is a 1k trimpot. Similar units are available from Mouser, Digi-Key, etc. under the Bourns
or CTS or ...

774-201UR102B
<http://www.mouser.com/ProductDetail/CTS-Electronic-Components/201UR102B/?qs=sGAEpiMZZMtC25l1F4XBUxzPolMWh3JUEwEZTefNNOw%3d>

is a mouser part number.

You might want to take a look at my Service supplement CDs at the web address below. A BIG help
in servicing these units.

This pot failing is often a result of excessive current drawn by V15, sometimes due to R92 or C135.
<http://www.mouser.com/ProductDetail/CTS-Electronic-Components/201UR102B/?qs=sGAEpiMZZMtC25l1F4XBUxzPolMWh3JUEwEZTefNNOw%3d>

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tcgreiner2@... wrote:
> Need the value for R187 trimmer pot on the TR4C. I only have an 8 1/2 x 11 sheet for the schematic. Too small to read. I have a manual coming with the 11 x 17 foldout but would like to get a jump on this repair. Any help on where to buy a new trimmer pot? Thanks...Tom Greiner...WT8X
>
> [Non-text portions of this message have been removed]
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> ------------------------------------
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> Yahoo Groups Links
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19950. Re: [DrakeRadio] Drake 2-C Noise Blanker (2-NB) physical Measurements

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 01:52:08 UTC
From: <k6ctw@...>
Topic: 19934 Message: 19950

Thanks for the kind offer but Bob has already agreed to send me that information.

Hope to get the layout finished in a couple of weeks (given my crazy work schedule that might be a stretch but .....)

73 - ken

[Non-text portions of this message have been removed]

19951. New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 03:32:40 UTC
From: <kk.n8vkx@...>
Topic: 19951 Message: 19951

Hello to all. I just received a Drake TR-4 from another ham that he wasn't using anymore. I swapped him a Yaesu FT-101e that was "hacked up" I really didn't want to try to repair. He needed it for parts and I thought this would be a good swap, which it was. After a little TLC and cleaning I had it on the air.
As for my question, I'm used to tuning up my Kenwood TS-520, but this rig I'm having some difficulty. I followed the manual but I still get a (.6) or higher reading on the meter. I tried adjusting the carrier balance control but I'm not sure if I'm doing it correctly.
And one more thing, I got a few items from an estate sale and in a small box I found that there was about 60 to 70 #12 light/fuse bulbs that are used in some of the Drakes. When I first found the bulbs, I had know idea what they were for, till I got the TR-4. I'm going to keep a few, but does anyone here on this group know someone that would be interested in these bulbs to buy or swap for something?

[Non-text portions of this message have been removed]

19952. Re: [DrakeRadio] 2B question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-09 22:42:55 UTC
From: Ethan Blanton
Topic: 19938 Message: 19952

kg0mn@... spake unto us the following wisdom:
> I need to ask a question before I start looking for the problem. I
> have a very nice inside and out 2B with Q-multiplier that does not
> seem to do a very good job of muting itself when used my Apache and
> Dowkey. From everyone's past experience is this usually related to :
>
> A. Bad or weak tube

For me, it was a bum 6U8A:

http://kb8ojh.net/projects/2-b-muting/

Ethan

19953. Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 11:53:28 UTC
From: <rochep@...>
Topic: 19953 Message: 19953

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

[Non-text portions of this message have been removed]

19954. Re: [DrakeRadio] New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 12:10:04 UTC
From: Don Cunningham
Topic: 19951 Message: 19954

If no one else does, I will trade you something for the #12's.
Invariably when someone new buys a TR4, they show up here looking for a bulb to "fix" their new find, and I can share them with the new Drake folks. I lurk here a lot. Let me know what you need, and I'll see if I have it.
73,
Don, WB5HAK
On 4/9/2014 10:32 PM, kk.n8vkx@... wrote:
>
> Hello to all. I just received a Drake TR-4 from another ham that he
> wasn't using anymore. I swapped him a Yaesu FT-101e that was "hacked
> up" I really didn't want to try to repair. He needed it for parts and
> I thought this would be a good swap, which it was. After a little TLC
> and cleaning I had it on the air.
> As for my question, I'm used to tuning up my Kenwood TS-520, but this
> rig I'm having some difficulty. I followed the manual but I still get
> a (.6) or higher reading on the meter. I tried adjusting the carrier
> balance control but I'm not sure if I'm doing it correctly.
> And one more thing, I got a few items from an estate sale and in a
> small box I found that there was about 60 to 70 #12 light/fuse bulbs
> that are used in some of the Drakes. When I first found the bulbs, I
> had know idea what they were for, till I got the TR-4. I'm going to
> keep a few, but does anyone here on this group know someone that would
> be interested in these bulbs to buy or swap for something?
>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19955. R-4 Notch update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 12:23:18 UTC
From: Steve Wedge
Topic: 19955 Message: 19955

I had a few minutes to play with the notch filter again. At zero beat, the knob is on the last mark. At that point, I can get a really good null with the NOTCH ADJ pot.

Either the coil drifted (not likely) or someone before me messed with it (most likely).

I'm going to try removal from the chassis to adjust the slug and to make sure there's not something mechanical that's off. I need to take the PBT apart anyway to re-grease it.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

19956. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 13:03:49 UTC
From: Garey Barrell
Topic: 19953 Message: 19956

Paul -

No, that is not normal..... I suspect someone has been 'fixing' the Passband Tuner. This will
occur if the IF frequency is off, but I think you have just been through that. If you are certain of your measurements, alignment is indicated.

Alignment instructions are on the CD in the MISC directory.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters
>
> 4. 8 kc filter S meter peaks S9+6 dB
> 2.4 kc filter S meter peaks S9+8 dB
> 1.2 kc filter S meter peaks S4-S4 dB
> 0.4 kc filter S meter peaks S5 dB
>
> I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.
>
> paul
>

19957. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 13:24:37 UTC
From: Bernie
Topic: 19953 Message: 19957

Yes, Paul, it is normal...and here's why. If you really enjoy looking at a freshly baked apple pie right out of the oven, it's a beauty to behold. That's the 4.8 setting, a nice wide open window of sound. Now you have company over, and give two of them a piece of that apple pie (2.4 setting)...what's left in the dish are fewer pieces, a smaller "window" for sound to pass through. You have a couple more pieces for yourself (I always eat two) (which is the 1.2 filter) and you only have two pieces left in the plate (a lot narrower passband window)...and in the middle of the night when the wife is sound asleep, you sneak down and eat one more piece, leaving just one more piece in the dish (that's the .4 filter), you realize that the beautiful pie is dang near gone (only 400 cycles to pass your audio through). Therefore, each time you narrow the passband down, you narrow the window of reception. The .4 kHz is designed for CW...the 4.8 for AM, and 2.4 is where I like to listen unless there is a nearby adjacent station interfering, and then I go to 1.2k which is still understandable, but not full audio, but narrow enough to eliminate the nearby interference. That one does require a bit more on the RF gain or the AF gain or both. So in short...I believe it is normal. Let's have a cup of coffee and a piece of pie. 73

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 6:53 AM
Subject: [DrakeRadio] Very weak signals on narrow filter

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19958. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 13:27:28 UTC
From: Bernie
Topic: 19953 Message: 19958

Paul...

Listen to Garey...he's the Grand Master of the Drake list here...and I'm still learning here. But I sure do like pie!!

73

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 6:53 AM
Subject: [DrakeRadio] Very weak signals on narrow filter

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19959. Re: [DrakeRadio] R-4 Notch update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 14:25:31 UTC
From: Steve Wedge
Topic: 19955 Message: 19959

During one of my many ADD moments, I walked over to the bench and gave the whole adjustment thing some thought.

I then removed the frequency window lamp/filter bracket assembly. Having done that, I was able to turn the slug by hand and by nudges with an insulated tool and occasionally needle-nose pliers. I've now got the notch right on 12 o'clock with the calibrator at zero beat. It was about 3 turns off, but there's plenty of adjustment room left, so I'm not going to obsess over why it was off by so much, since it may not have been adjusted (or misadjusted) in half a lifetime.

I get a nice, deep null now. Problem solved.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Steve Wedge
Sent: Thursday, April 10, 2014 8:23 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] R-4 Notch update

I had a few minutes to play with the notch filter again. At zero beat, the knob is on the last mark. At that point, I can get a really good null with the NOTCH ADJ pot.

Either the coil drifted (not likely) or someone before me messed with it (most likely).

I'm going to try removal from the chassis to adjust the slug and to make sure there's not something mechanical that's off. I need to take the PBT apart anyway to re-grease it.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

[Non-text portions of this message have been removed]

19960. Re: [DrakeRadio] R-4 Notch update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 14:43:38 UTC
From: wes bolin
Topic: 19955 Message: 19960

Hi Steve
Thanks for sharing with us the problem and the fix. Glad its working.

Wes

On Thu, Apr 10, 2014 at 9:25 AM, Steve Wedge <w1es1982@...> wrote:

> During one of my many ADD moments, I walked over to the bench and gave the
> whole adjustment thing some thought.
>
> I then removed the frequency window lamp/filter bracket assembly. Having
> done that, I was able to turn the slug by hand and by nudges with an
> insulated tool and occasionally needle-nose pliers. I've now got the notch
> right on 12 o'clock with the calibrator at zero beat. It was about 3 turns
> off, but there's plenty of adjustment room left, so I'm not going to obsess
> over why it was off by so much, since it may not have been adjusted (or
> misadjusted) in half a lifetime.
>
> I get a nice, deep null now. Problem solved.
>
> 73,
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended
> thereto.
>
>
>
> From: Steve Wedge
> Sent: Thursday, April 10, 2014 8:23 AM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] R-4 Notch update
>
>
>
> I had a few minutes to play with the notch filter again. At zero beat, the
> knob is on the last mark. At that point, I can get a really good null with
> the NOTCH ADJ pot.
>
> Either the coil drifted (not likely) or someone before me messed with it
> (most likely).
>

> I'm going to try removal from the chassis to adjust the slug and to make
> sure there's not something mechanical that's off. I need to take the PBT
> apart anyway to re-grease it.
>
> Steve Wedge, W1ES/4
>
> Sent from my iPad: please don't laugh too hard at any autocorrect grammar
> changes :)
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19961. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 15:01:14 UTC
From: <rochep@...>
Topic: 19953 Message: 19961

No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.

paul

[Non-text portions of this message have been removed]

19962. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 15:38:06 UTC
From: Steve Wedge
Topic: 19953 Message: 19962

It needs an alignment.

From the R-4 to the R-4B, the PBT circuits are all the same (well, maybe there could be a minor component variation somewhere - but you get the picture). When centred on the signal (in this case, the calibrator), you should not get too much variability in signal strength.

With my freshly-tweaked R-4, on 80 I have S9+35 at 4.8, INCREASING to S9+40 at the other three positions. Still, it's not much of a difference...

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Bernie
Sent: Thursday, April 10, 2014 9:24 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Very weak signals on narrow filter

Yes, Paul, it is normal...and here's why. If you really enjoy looking at a freshly baked apple pie right out of the oven, it's a beauty to behold. That's the 4.8 setting, a nice wide open window of sound. Now you have company over, and give two of them a piece of that apple pie (2.4 setting)...what's left in the dish are fewer pieces, a smaller "window" for sound to pass through. You have a couple more pieces for yourself (I always eat two) (which is the 1.2 filter) and you only have two pieces left in the plate (a lot narrower passband window)...and in the middle of the night when the wife is sound asleep, you sneak down and eat one more piece, leaving just one more piece in the dish (that's the .4 filter), you realize that the beautiful pie is dang near gone (only 400 cycles to pass your audio through). Therefore, each time you narrow the passband down, you narrow the window of reception. The .4 kHz is designed for CW...the 4.8 for AM, and 2.4 is where I like to listen unless there is a nearby adjacent station interfering, and then I go to 1.2k which is still understandable, but not full audio, but narrow enough to eliminate the nearby interference. That one does require a bit more on the RF gain or the AF gain or both. So in short...I believe it is normal. Let's have a cup of coffee and a piece of pie. 73

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 6:53 AM
Subject: [DrakeRadio] Very weak signals on narrow filter

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

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[Non-text portions of this message have been removed]

19963. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 15:41:26 UTC
From: Steve Wedge
Topic: 19953 Message: 19963

Paul, it's pretty easy to do with either a VTVM or scope connected to TP1 and the calibrator.

You're adjusting each slug for a negative max voltage. I usually go through the slugs at least twice to make sure everything's peaked. I won't bore everyone with the setup and the procedure, as it's in the manuals and CD's. I especially wanted to point out that you can use a scope in place of a VTVM.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@...
Sent: Thursday, April 10, 2014 11:01 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: Very weak signals on narrow filter

No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19964. Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 16:32:20 UTC
From: <kk.n8vkx@...>
Topic: 19951 Message: 19964

Thanks. Some of the things I could use is a High impedance mic for the TR-4 or a 3 position coax switch that has unused connections grounded.
Back to my radio, do you know what to look for in the keying circuit that is keeping the transmitter from not staying keyed? It works using the mic that I'm using, but not with a key.

[Non-text portions of this message have been removed]

19965. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 16:47:23 UTC
From: Don Cunningham
Topic: 19951 Message: 19965

Hi,
You might try lengthening the "Vox delay" control on the side of the
TR4. The CW keying should be using the Vox (6EV7 tube) circuit to key
CW, or if my old mind is thinking wrong, and it often does, and this is
true grid block keying, I'll have to look at the schematic and see which
tube and what components are around the keying circuit. Yours is the
"plain" TR-4, right?? By the way, what is your name?? We usually put
that on so folks get used to who we are and know what to call us.
Welcome to the group, by the way. Also, let me know how many of those
bulbs we are talking about and I'll see what I have to satisfy your
needs there.
73,
Don, WB5HAK
On 4/10/2014 11:32 AM, kk.n8vkx@... wrote:
>
> Thanks. Some of the things I could use is a High impedance mic for the
> TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit
> that is keeping the transmitter from not staying keyed? It works using
> the mic that I'm using, but not with a key.
>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19966. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 16:50:06 UTC
From: <rochep@...>
Topic: 19953 Message: 19966

Steve,

I HAVE done the passband tuner alignment already, I thought all was OK. I think Garey was suspecting my 50 kc IF was out of alignment. I'll look at my passband tuning alignment again, peaking for signal strength and then "centering" the "swoosh" as per the manual. The fact that you get similar S meter readings on AM and narrow CW filters clearly indicates something is wrong with mine.

(Still managed to work 9M2 at 11pm here on 15 meters last night, best DX with my Drake station yet).

paul

[Non-text portions of this message have been removed]

19967. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 16:52:30 UTC
From: Garey Barrell
Topic: 19953 Message: 19967

Paul -

OK. You really don't need a signal generator to do a 'field alignment'. The internal Calibrator is more than adequate for 90% of the job.

The most important thing at the moment is to make sure that the BFO is set to 50 kHz. This can
be done per the manual (VII, a) using the Calibrator and a clip lead, or if you have a counter
you can just count the BFO signal and set to 50.000 kHz.

Then do paragraph b., by just tuning in any Calibrator signal to zero beat and peak T7, 10 and
14. Set AVC to FAST, and detune the PreSelector if necessary to get the signal down to below
S-9. Leave the rest for better test equipment.

Now do the alignment procedure on the CD.

That's good enough for now, see if it resolves the insertion loss of the PB tuner.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.
>
>

19968. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:00:13 UTC
From: Don Cunningham
Topic: 19951 Message: 19968

Well, maybe Garey will chime in here anyway, but I went to WB4HFN's site and did a quick readthrough of the theory part of the manual. I was right on both counts, for a change. It does use the sidetone, keyed through the VOX relay tube (6EV7) to key the relays. Play with the VOX gain and delay controls and you should be able to get it to stay keyed like you want. If not, you may have a problem in one of the circuits I mentioned, sidetone, Vox gain or vox delay. Likely it's just an adjustment.

You are probably using push to talk on the mic, which is a horse of another color, as the Rednecks say out here, HI. You have a nice rig there, by the way.
73,
Don, WB5HAK
On 4/10/2014 11:32 AM, kk.n8vkx@... wrote:
>
> Thanks. Some of the things I could use is a High impedance mic for the
> TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit
> that is keeping the transmitter from not staying keyed? It works using
> the mic that I'm using, but not with a key.
>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19969. Re: [DrakeRadio] TR4C s meter adjustment pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:08:45 UTC
From: <tcgreiner2@...>
Topic: 19946 Message: 19969

Garey...Thanks for the info. I have a manual ordered and on the way. Is there a difference in schematics of different serial numbers? I found the exact CTS pots on Ebay. A lot of four new ones for $2.00. Not sure what I'll do with the other three but I might drop one and step on it and then I have a spare or two or three. 73...Tom

[Non-text portions of this message have been removed]

19970. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:13:55 UTC
From: <rochep@...>
Topic: 19953 Message: 19970

great, will do in the next couple of days. Thanks again!!!!!!

p

[Non-text portions of this message have been removed]

19971. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:23:58 UTC
From: Garey Barrell
Topic: 19951 Message: 19971

I'm going to assume that what you are seeing is that when you close the key, the relay pulls in
and a short 'dit' is sent and then it drops out. You don't mention it, but I would guess that
you don't have any SIDETONE in the speaker.

IN that case, the most likely problem is V2, the SIDETONE generator.

If you DO have a SIDETONE, be sure that the ANTI-VOX control isn't advanced too far.

IF still no luck, post again with your results!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kk.n8vkx@... wrote:
> Thanks. Some of the things I could use is a High impedance mic for the TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit that is keeping the transmitter from not staying keyed? It works using the mic that I'm using, but not with a key.
>
>

19972. Re: [DrakeRadio] TR4C s meter adjustment pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:40:08 UTC
From: Garey Barrell
Topic: 19946 Message: 19972

Tom -

Yes, there are four different schematics for the TR-4C. All four are on my CD, along with the
full scan of the manual. If you haven't already, take a look at the color photos on my web page.

If you don't want the CD after looking, send me the s/n and I'll send you the correct schematic.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tcgreiner2@... wrote:
> Garey...Thanks for the info. I have a manual ordered and on the way. Is there a difference in schematics of different serial numbers? I found the exact CTS pots on Ebay. A lot of four new ones for $2.00. Not sure what I'll do with the other three but I might drop one and step on it and then I have a spare or two or three. 73...Tom
>
>

19973. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:50:16 UTC
From: <clwelsch@...>
Topic: 12987 Message: 19973

Hello Garey,

I found your answer by chance on the Yahoo Drake group, which I don't get automatically anymore...

I understand that this is very strange, I see your point but don't understand it either!

Is there anything in common between the 21, 28-28.5, 28.5-29 bands which is not on the 29.1-29.6 band?

The crystals are in the right position and I exchanged them with my TR-4 crystals. They do work well in the TR-4 and the TR-4 crystals make the same error in the TR-4C so I have no reason to believe that the crystals are bad (as was my old 40m crystal on the TR-4 where the new crystal from GB solved the problem).

Greetings

Claude

[Non-text portions of this message have been removed]

19974. Re: [DrakeRadio] Re: New member and question & fuse lamp

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 17:56:46 UTC
From: William Houghton
Topic: 19951 Message: 19974

Do Drakes use a #12 bulb (6.3V) or a #10 bulb (2.5V) as the lamp fuse? I have heard it is a #10. Perhaps Obi-Garey can chime in.

73,

Bill, WA6NEQ

From: Don Cunningham <donc@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 9:47 AM
Subject: Re: [DrakeRadio] Re: New member and question?

Hi,
You might try lengthening the "Vox delay" control on the side of the TR4. The CW keying should be using the Vox (6EV7 tube) circuit to key CW, or if my old mind is thinking wrong, and it often does, and this is true grid block keying, I'll have to look at the schematic and see which tube and what components are around the keying circuit. Yours is the "plain" TR-4, right?? By the way, what is your name?? We usually put that on so folks get used to who we are and know what to call us. Welcome to the group, by the way. Also, let me know how many of those bulbs we are talking about and I'll see what I have to satisfy your needs there.
73,
Don, WB5HAK
On 4/10/2014 11:32 AM, kk.n8vkx@... wrote:
>
> Thanks. Some of the things I could use is a High impedance mic for the
> TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit
> that is keeping the transmitter from not staying keyed? It works using
> the mic that I'm using, but not with a key.
>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19975. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:16:09 UTC
From: Steve Wedge
Topic: 19953 Message: 19975

What are the chances of a bad cap in the PBT board? I know all those parts were matched (hence the different colours on the tips of them) but there should be a way to replace one if need be. It would be the absolute last thing I'd try. The thread is truncated here, but I believe the problem starts at 1.2, IIRC. That would suggest the section to start looking in.

I also seem to remember that when I had the bad C126 on that R-4B that I was having a similar problem.

When you peak the PBT coils, are there any that don't seem to change the voltage on TP-1 when you adjust them?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, April 10, 2014 12:52 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: Very weak signals on narrow filter

Paul -

OK. You really don't need a signal generator to do a 'field alignment'. The internal Calibrator is more than adequate for 90% of the job.

The most important thing at the moment is to make sure that the BFO is set to 50 kHz. This can
be done per the manual (VII, a) using the Calibrator and a clip lead, or if you have a counter
you can just count the BFO signal and set to 50.000 kHz.

Then do paragraph b., by just tuning in any Calibrator signal to zero beat and peak T7, 10 and
14. Set AVC to FAST, and detune the PreSelector if necessary to get the signal down to below
S-9. Leave the rest for better test equipment.

Now do the alignment procedure on the CD.

That's good enough for now, see if it resolves the insertion loss of the PB tuner.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

rochep@... wrote:
> No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.
>
>

[Non-text portions of this message have been removed]

19976. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:16:53 UTC
From: GALE STEWARD
Topic: 19951 Message: 19976

What is the website for the blue filter material used for the Drake dial lamps. I have a ham friend interested in another color (not for a Drake).

I thought I had it bookmarked but can't find it.

73, Stew K3ND

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 1:23 PM
Subject: Re: [DrakeRadio] Re: New member and question?

I'm going to assume that what you are seeing is that when you close the key, the relay pulls in
and a short 'dit' is sent and then it drops out. You don't mention it, but I would guess that
you don't have any SIDETONE in the speaker.

IN that case, the most likely problem is V2, the SIDETONE generator.

If you DO have a SIDETONE, be sure that the ANTI-VOX control isn't advanced too far.

IF still no luck, post again with your results!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

kk.n8vkx@... wrote:
> Thanks. Some of the things I could use is a High impedance mic for the TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit that is keeping the transmitter from not staying keyed? It works using the mic that I'm using, but not with a key.
>
>

Yahoo Groups Links

[Non-text portions of this message have been removed]

19977. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:18:00 UTC
From: Garey Barrell
Topic: 12987 Message: 19977

Claude -

OK, I wasn't sure I had the problem straight.

The 15M crystal is tuned by L5. It may be possible to tune to another spur from the crystal.
These are 3rd overtone crystals, and they are not loaded properly they can get squirrely. Your
might try adjusting L5 while listening on a separate receiver or counter to be sure it's on 35.5 MHz

The 10M question is most likely the result of damaged or missing incremental coils mounted on
the BAND switch. These coils are L3 and L4, and are small 'hairpin' leads right on the switch
terminals. If the end of L3 that is tied to L2 is open, there would be no connection to L2 on
the first two 10M bands. This would not affect 15M however....

See attached photo from my CD.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

clwelsch@... wrote:
> Hello Garey,
>
> I found your answer by chance on the Yahoo Drake group, which I don't get automatically anymore...
>
>
> I understand that this is very strange, I see your point but don't understand it either!
>
>
> Is there anything in common between the 21, 28-28.5, 28.5-29 bands which is not on the 29.1-29.6 band?
>
>
> The crystals are in the right position and I exchanged them with my TR-4 crystals. They do work well in the TR-4 and the TR-4 crystals make the same error in the TR-4C so I have no reason to believe that the crystals are bad (as was my old 40m crystal on the TR-4 where the new crystal from GB solved the problem).
>

>
> Greetings
>
>
> Claude
>

[Non-text portions of this message have been removed]

19978. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:26:46 UTC
From: <clwelsch@...>
Topic: 12987 Message: 19978

Ok, Garey. Thanks for the tips. I'll check that tomorrow and tell you the result.

Good evening

Claude

[Non-text portions of this message have been removed]

19979. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:27:17 UTC
From: Robert Logan
Topic: 19953 Message: 19979

What you typically get as you narrow a filter is decreased noise, not signal. Since the S-meter reads the total receiver output (signal + noise), the meter will see less 'signal' because the noise is less. Noise is much wider bandwidth than a signal, so you are narrowing the window for noise + signal, with noise being cut first. A CW signal is about 25 hertz in bandwidth. Noise occupies the rest of the .4 or 1.8 or 2.2 or 4.8 kHz windows.

Say, for example and simplicity, a signal is '3' and noise is '2', or signal barely above the noise. Signal + noise is '5' total output.

Then narrow the filter to decrease the window for noise + signal. Since noise has much wider bandwidth than signal, the filter cuts it first and leaves the signal bandwidth pretty much untouched until you get really narrow. So then you have, in this simple example, signal 3 and noise 1. So signal + noise is now '4'---less total output but signal much more the above noise.

Among other things, the differing quality of skirts on filters and how close the IF is centered on the exact desired frequency influences the output of the 'equation). Which, as Steve said, the rig probably needs a close alignment, not necessarily (and not probably) new filters.

With a wide filter, it is hard to distinguish between signal and noise on a meter that inherently has some lag in response time. Ears are much sharper. I hardly ever look at the S meter to give a signal report.

In other words, it is not surprising to see less total output on a meter as you narrow the filter. Bob NZ5A

Sent from my iPhone

On Apr 10, 2014, at 10:38 AM, "Steve Wedge" <w1es1982@triad.rr.com> wrote:

It needs an alignment.

From the R-4 to the R-4B, the PBT circuits are all the same (well, maybe there could be a minor component variation somewhere - but you get the picture). When centred on the signal (in this case, the calibrator), you should not get too much variability in signal strength.

With my freshly-tweaked R-4, on 80 I have S9+35 at 4.8, INCREASING to S9+40 at the other three positions. Still, it's not much of a difference...

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Bernie
Sent: Thursday, April 10, 2014 9:24 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Very weak signals on narrow filter

Yes, Paul, it is normal...and here's why. If you really enjoy looking at a freshly baked apple pie right out of the oven, it's a beauty to behold. That's the 4.8 setting, a nice wide open window of sound. Now you have company over, and give two of them a piece of that apple pie (2.4 setting)...what's left in the dish are fewer pieces, a smaller "window" for sound to pass through. You have a couple more pieces for yourself (I always eat two) (which is the 1.2 filter) and you only have two pieces left in the plate (a lot narrower passband window)...and in the middle of the night when the wife is sound asleep, you sneak down and eat one more piece, leaving just one more piece in the dish (that's the .4 filter), you realize that the beautiful pie is dang near gone (only 400 cycles to pass your audio through). Therefore, each time you narrow the passband down, you narrow the window of reception. The .4 kHz is designed for CW...the 4.8 for AM, and 2.4 is where I like to listen unless there is a nearby adjacent station interfering, and then I go to 1.2k which is still understandable, but not full audio, but narrow enough to eliminate the nearby interference. That one does require a bit more on the RF gain or the AF gain or both. So in short...I believe it is normal. Let's have a cup of coffee and a piece of pie. 73

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 6:53 AM
Subject: [DrakeRadio] Very weak signals on narrow filter

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

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[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

19980. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:27:30 UTC
From: William Houghton
Topic: 19951 Message: 19980

http://www.leefilters.com/

From: GALE STEWARD <k3nd@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 10, 2014 11:16 AM
Subject: Re: [DrakeRadio] Re: New member and question?

What is the website for the blue filter material used for the Drake dial lamps. I have a ham friend interested in another color (not for a Drake).

I thought I had it bookmarked but can't find it.

73, Stew K3ND

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 10, 2014 1:23 PM
Subject: Re: [DrakeRadio] Re: New member and question?

I'm going to assume that what you are seeing is that when you close the key, the relay pulls in
and a short 'dit' is sent and then it drops out. You don't mention it, but I would guess that
you don't have any SIDETONE in the speaker.

IN that case, the most likely problem is V2, the SIDETONE generator.

If you DO have a SIDETONE, be sure that the ANTI-VOX control isn't advanced too far.

IF still no luck, post again with your results!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kk.n8vkx@gmail.com wrote:
> Thanks. Some of the things I could use is a High impedance mic for the TR-4 or a 3 position coax switch that has unused connections grounded.
> Back to my radio, do you know what to look for in the keying circuit that is keeping the transmitter from not staying keyed? It works using the mic that I'm using, but not with a key.
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>

Yahoo Groups Links

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[Non-text portions of this message have been removed]

19981. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:29:11 UTC
From: Garey Barrell
Topic: 19953 Message: 19981

Steve -

Absent mechanical damage, that is very nearly impossible. Bill Frost has said that he can't recall repairing a PB tuner with a bad component on the board.

IF alignment doesn't correct this problem, my next step would be an evaluation of the switch
contacts.

C126 is the 'ground reference' for the entire filter, and if it is faulty the entire filter is
compromised.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> What are the chances of a bad cap in the PBT board? I know all those parts were matched (hence the different colours on the tips of them) but there should be a way to replace one if need be. It would be the absolute last thing I'd try. The thread is truncated here, but I believe the problem starts at 1.2, IIRC. That would suggest the section to start looking in.
>
> I also seem to remember that when I had the bad C126 on that R-4B that I was having a similar problem.
>
> When you peak the PBT coils, are there any that don't seem to change the voltage on TP-1 when you adjust them?
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Garey Barrell
> Sent: Thursday, April 10, 2014 12:52 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Re: Very weak signals on narrow filter

>
>
>
> Paul -
>
> OK. You really don't need a signal generator to do a 'field alignment'. The internal
> Calibrator is more than adequate for 90% of the job.
>
> The most important thing at the moment is to make sure that the BFO is set to 50 kHz. This can
> be done per the manual (VII, a) using the Calibrator and a clip lead, or if you have a counter
> you can just count the BFO signal and set to 50.000 kHz.
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> Then do paragraph b., by just tuning in any Calibrator signal to zero beat and peak T7, 10 and
> 14. Set AVC to FAST, and detune the PreSelector if necessary to get the signal down to below
> S-9. Leave the rest for better test equipment.
>
> Now do the alignment procedure on the CD.
>
> That's good enough for now, see if it resolves the insertion loss of the PB tuner.!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> rochep@... wrote:
>> No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.
>>
>>

19982. Re: [DrakeRadio] Re: New member and question & fuse lamp

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:46:03 UTC
From: Garey Barrell
Topic: 19951 Message: 19982

#12

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

William Houghton wrote:
> Do Drakes use a #12 bulb (6.3V) or a #10 bulb (2.5V) as the lamp fuse? I have heard it is a #10. Perhaps Obi-Garey can chime in.
>
> 73,
>
> Bill, WA6NEQ
>
>
> _____
> From: Don Cunningham <donc@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, April 10, 2014 9:47 AM
> Subject: Re: [DrakeRadio] Re: New member and question?
>
>
>
>
>
> Hi,
> You might try lengthening the "Vox delay" control on the side of the
> TR4. The CW keying should be using the Vox (6EV7 tube) circuit to key
> CW, or if my old mind is thinking wrong, and it often does, and this is
> true grid block keying, I'll have to look at the schematic and see which
> tube and what components are around the keying circuit. Yours is the
> "plain" TR-4, right?? By the way, what is your name?? We usually put
> that on so folks get used to who we are and know what to call us.
> Welcome to the group, by the way. Also, let me know how many of those
> bulbs we are talking about and I'll see what I have to satisfy your
> needs there.
> 73,
> Don, WB5HAK
> On 4/10/2014 11:32 AM, kk.n8vkx@... wrote:
>> Thanks. Some of the things I could use is a High impedance mic for the
>> TR-4 or a 3 position coax switch that has unused connections grounded.
>> Back to my radio, do you know what to look for in the keying circuit
>> that is keeping the transmitter from not staying keyed? It works using
>> the mic that I'm using, but not with a key.

>>
>> [Non-text portions of this message have been removed]
>>
>>

19983. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 18:47:18 UTC
From: Garey Barrell
Topic: 19951 Message: 19983

Lee Lighting is the manufacturer. Dealers listed on their webpages.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GALE STEWARD wrote:
> What is the website for the blue filter material used for the Drake dial lamps. I have a ham friend interested in another color (not for a Drake).
>
> I thought I had it bookmarked but can't find it.
>
> 73, Stew K3ND
>
>

19984. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 23:05:55 UTC
From: Steve Wedge
Topic: 19953 Message: 19984

My observations are that the insertion loss is minimal. Checked with an R-4, R-4A and R-4B that are currently on either the table or bench.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Robert Logan
Sent: Thursday, April 10, 2014 2:27 PM
To: DrakeRadio@yahoogroups.com
Cc: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Very weak signals on narrow filter

What you typically get as you narrow a filter is decreased noise, not signal. Since the S-meter reads the total receiver output (signal + noise), the meter will see less 'signal' because the noise is less. Noise is much wider bandwidth than a signal, so you are narrowing the window for noise + signal, with noise being cut first. A CW signal is about 25 hertz in bandwidth. Noise occupies the rest of the .4 or 1.8 or 2.2 or 4.8 kHz windows.

Say, for example and simplicity, a signal is '3' and noise is '2', or signal barely above the noise. Signal + noise is '5' total output.

Then narrow the filter to decrease the window for noise + signal. Since noise has much wider bandwidth than signal, the filter cuts it first and leaves the signal bandwidth pretty much untouched until you get really narrow. So then you have, in this simple example, signal 3 and noise 1. So signal + noise is now '4'---less total output but signal much more the above noise.

Among other things, the differing quality of skirts on filters and how close the IF is centered on the exact desired frequency influences the output of the 'equation). Which, as Steve said, the rig probably needs a close alignment, not necessarily (and not probably) new filters.

With a wide filter, it is hard to distinguish between signal and noise on a meter that inherently has some lag in response time. Ears are much sharper. I hardly ever look at the S meter to give a signal report.

In other words, it is not surprising to see less total output on a meter as you narrow the filter. Bob NZ5A

Sent from my iPhone

On Apr 10, 2014, at 10:38 AM, "Steve Wedge" <w1es1982@...> wrote:

It needs an alignment.

From the R-4 to the R-4B, the PBT circuits are all the same (well, maybe there could be a minor component variation somewhere - but you get the picture). When centred on the signal (in this case, the calibrator), you should not get too much variability in signal strength.

With my freshly-tweaked R-4, on 80 I have S9+35 at 4.8, INCREASING to S9+40 at the other three positions. Still, it's not much of a difference...

73,

Steve Wedge, W1ES/4

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All my computers have my signature with various pearls of wisdom appended thereto.

From: Bernie
Sent: Thursday, April 10, 2014 9:24 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Very weak signals on narrow filter

Yes, Paul, it is normal...and here's why. If you really enjoy looking at a freshly baked apple pie right out of the oven, it's a beauty to behold. That's the 4.8 setting, a nice wide open window of sound. Now you have company over, and give two of them a piece of that apple pie (2.4 setting)...what's left in the dish are fewer pieces, a smaller "window" for sound to pass through. You have a couple more pieces for yourself (I always eat two) (which is the 1.2 filter) and you only have two pieces left in the plate (a lot narrower passband window)...and in the middle of the night when the wife is sound asleep, you sneak down and eat one more piece, leaving just one more piece in the dish (that's the .4 filter), you realize that the beautiful pie is dang near gone (only 400 cycles to pass your audio through). Therefore, each time you narrow the passband down, you narrow the window of reception. The .4 kHz is designed for CW...the 4.8 for AM, and 2.4 is where I like to listen unless there is a nearby adjacent station interfering, and then I go to 1.2k which is still understandable, but not full audio, but narrow enough to eliminate the nearby interference. That one does require a bit more on the RF gain or the AF gain or both. So in short...I believe it is normal. Let's have a cup of coffee and a piece of pie. 73

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@...m
Sent: Thursday, April 10, 2014 6:53 AM
Subject: [DrakeRadio] Very weak signals on narrow filter

When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters

4. 8 kc filter S meter peaks S9+6 dB
2.4 kc filter S meter peaks S9+8 dB
1.2 kc filter S meter peaks S4-S4 dB
0.4 kc filter S meter peaks S5 dB

I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.

paul

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19985. Re: [DrakeRadio] Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-10 23:42:01 UTC
From: GRANT YOUNGMAN
Topic: 19953 Message: 19985

I?ve just spent a couple of days with an R-4B passband filter, looking at it?s behavior on a spectrum analyzer.

Steve is absolutely correct, of course. Presuming the PBT is actually centered on the signal you want, you should not see significant differences S-meter readings between selectivity positions. Small variation would be normal, but the differences you have indicate something isn?t working right.

The radio needs to be aligned.

Grant NQ5T

On Apr 10, 2014, at 6:05 PM, Steve Wedge <w1es1982@....com> wrote:

> My observations are that the insertion loss is minimal. Checked with an R-4, R-4A and R-4B that are currently on either the table or bench.
>
> Steve Wedge, W1ES/4
>
>
> ----- Original Message -----
> From: rochep@...
> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, April 10, 2014 6:53 AM
> Subject: [DrakeRadio] Very weak signals on narrow filter
>
> When I tune in a station on the 2.4 kc bandwidth setting and then switch to 1.2 kc or 0.4 kc I can now barely hear the station. I did some testing using CAL as the signal on 40 meters
>
> 4. 8 kc filter S meter peaks S9+6 dB
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>
> I tune the passband to get peak reading on each filter setting (they vary slightly from filter to filter). Is it normal for signal strength to drop off so dramatically from the 2.4 kc filter to the 1.2 kc filter? If not, what should I investigate to fix? Hard to do weak signal DXing using a 2.4 kc filter since I can't even hear the signals on teh 0.4 kc filter.
>
> paul
>

[Non-text portions of this message have been removed]

19986. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 00:21:32 UTC
From: Steve Wedge
Topic: 19953 Message: 19986

Yeah, I remember that my PBT was acting strangely, but it was still "sorta" working, with the bad C126. It was most obvious on the narrower settings.

I could not get the last slug to adjust - which is why I took it apart to see which slug was the last in line. Turned out that the one that didn't adjust was the last one in the series.

Yes, I'd say a cap on the PBT board is very unlikely to fail, but it can. You're just more likely to win $50,000 on a scratch ticket

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, April 10, 2014 2:29 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: Very weak signals on narrow filter

Steve -

Absent mechanical damage, that is very nearly impossible. Bill Frost has said that he can't recall repairing a PB tuner with a bad component on the board.

IF alignment doesn't correct this problem, my next step would be an evaluation of the switch
contacts.

C126 is the 'ground reference' for the entire filter, and if it is faulty the entire filter is
compromised.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> What are the chances of a bad cap in the PBT board? I know all those parts were matched (hence the different colours on the tips of them) but there should be a way to replace one if need be. It would be the absolute last thing I'd try. The thread is truncated here, but I believe the problem starts at 1.2, IIRC. That would suggest the section to start looking in.
>

> I also seem to remember that when I had the bad C126 on that R-4B that I was having a similar problem.
>
> When you peak the PBT coils, are there any that don't seem to change the voltage on TP-1 when you adjust them?
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Garey Barrell
> Sent: Thursday, April 10, 2014 12:52 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Re: Very weak signals on narrow filter
>
>
>
> Paul -
>
> OK. You really don't need a signal generator to do a 'field alignment'. The internal
> Calibrator is more than adequate for 90% of the job.
>
> The most important thing at the moment is to make sure that the BFO is set to 50 kHz. This can
> be done per the manual (VII, a) using the Calibrator and a clip lead, or if you have a counter
> you can just count the BFO signal and set to 50.000 kHz.
>
> Then do paragraph b., by just tuning in any Calibrator signal to zero beat and peak T7, 10 and
> 14. Set AVC to FAST, and detune the PreSelector if necessary to get the signal down to below
> S-9. Leave the rest for better test equipment.
>
> Now do the alignment procedure on the CD.
>
> That's good enough for now, see if it resolves the insertion loss of the PB tuner.!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

> rochep@... wrote:
>> No, I have not done a complete alignment, I do not have a signal generator of sufficient quality for that (I have a crummy Eico 324). It's good enough for now, maybe can borrow a good one from a fellow PVRC club member. I swapped out a bunch of 12BA6 tubes, none of them changed the values much.
>>
>>

[Non-text portions of this message have been removed]

19987. Shack cleaning - MFJ items FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 01:58:14 UTC
From: Jim Lowman
Topic: 19987 Message: 19987

MFJ-969 antenna tuner, HF-6m, 300w, dummy load, antenna switch
http://www.mfjenterprises.com/Product.php?productid=MFJ-969

This is an older model, with gray face - $175.

MFJ-784B - tunable DSP filter - $225.
http://www.mfjenterprises.com/Product.php?productid=MFJ-784B

MFJ-492X - memory keyer, 8 MB memory - $100.
http://www.mfjenterprises.com/Product.php?productid=MFJ-492X

All items are in excellent condition. Photos available on request.
All prices + shipping. PayPal okay, but add 3%

Thanks for looking and 72/73 de Jim - AD6CW

19988. Re: [DrakeRadio] Re: New member and question & fuse lamp

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 02:28:49 UTC
From: <kk.n8vkx@...>
Topic: 19951 Message: 19988

Oops, I should identify myself. Name is Kevin.
As for the radio, it is a plain TR-4, but with one additional device on the chassis. It looks like a tube socket with jumper plug on it. It sits beside T-8.
I'll get right on it and try out these suggestions to see if anything works.

[Non-text portions of this message have been removed]

19989. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 03:01:00 UTC
From: <kk.n8vkx@...>
Topic: 19951 Message: 19989

Well, I tried both the VOX and ANTIVOX controls and nothing changed. I'm not hearing any sidetone. I checked the voltages on V-19 and all were right except pin 2, it read .6 volts, and for a moment when keyed, .4 volts. I tried to read the voltages on V2 but there is a lot of wires in the road.

[Non-text portions of this message have been removed]

19990. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 03:21:32 UTC
From: Don Cunningham
Topic: 19951 Message: 19990

Kevin,
Garey, K4OAH, is our resident guru on the tube type Drake gear and his suggestion to check V2 is what I would do. First, if you have access to another V2 tube, I would sub it. I don't have the schematic or manual pulled up, and my TR4 is a TR4C and I'm not sure that the tubes/numbers even come close to matching at this late hour, so I'll not try that, but as Garey said, if you can't hear the sidetone, that's a direct indication that it is the problem. Either the tube, or something within that tube's circuitry that generates the sidetone. Garey makes a neat CD that contains a WEALTH of information for a reasonable price on each of the 4 line rigs. See what he offers at www.k4oah.com and see if it would help you. I have bought them for ALL the rigs I own, as I find them a big help to me finding components, boards, and finding schematics and alignment procedures, etc. Your call, as his advice/help is still free, HI. Look at his postings and report back with what he asks, and you will get the rig operating like it should.

Good luck!!!
73,
Don, WB5HAK
On 4/10/2014 10:01 PM, kk.n8vkx@... wrote:
>
> Well, I tried both the VOX and ANTIVOX controls and nothing changed.
> I'm not hearing any sidetone. I checked the voltages on V-19 and all
> were right except pin 2, it read .6 volts, and for a moment when
> keyed, .4 volts. I tried to read the voltages on V2 but there is a lot
> of wires in the road.
>
> [Non-text portions of this message have been removed]
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

19991. NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 04:10:23 UTC
From: David Nichols
Topic: 19991 Message: 19991

They are going nuts for the new in the box TR-4CW rit on ebay! Its been there a few hours and started at $9.99, already at $610.00.. It is very nice looking along with the vfo and speaker. All sold separately but I did get to drool at the pictures for a while. These babies will fetch TOP DOLLAR!

David, KX7C

[Non-text portions of this message have been removed]

19992. Re: [DrakeRadio] Shack cleaning - MFJ items FS

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 04:26:56 UTC
From: vacuuminded2@...
Topic: 19987 Message: 19992

Please don't cross-post to multiple groups in the same message- Send a separate email to each group. Cross-posting tends to clog up spam filters and should be avoided.

Regards,
Chris

Sent from my outdated iPhone wireless thingy

On Apr 10, 2014, at 8:58 PM, Jim Lowman <jmlowman@...> wrote:

> MFJ-969 antenna tuner, HF-6m, 300w, dummy load, antenna switch
> http://www.mfjenterprises.com/Product.php?productid=MFJ-969
>
> This is an older model, with gray face - $175.
>
> MFJ-784B - tunable DSP filter - $225.
> http://www.mfjenterprises.com/Product.php?productid=MFJ-784B
>
> MFJ-492X - memory keyer, 8 MB memory - $100.
> http://www.mfjenterprises.com/Product.php?productid=MFJ-492X
>
> All items are in excellent condition. Photos available on request.
> All prices + shipping. PayPal okay, but add 3%
>
> Thanks for looking and 72/73 de Jim - AD6CW
>
>

[Non-text portions of this message have been removed]

19993. TR-7 on AM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 13:23:10 UTC
From: Ed Purvis
Topic: 4547 Message: 19993

I have been using my TR-7 on AM with good results. My understanding is the transmit goes through the stock 2.3kc filter, carrier and one sideband.

Can a 6kc filter be used in place of the stock filter to gain a wider tx bandwidth? Not to be used on SSB.

I am aware of the modification by Jeff Covelli. My TR-7 is almost perfect condition and don't really want to change much from original.

Any input will be appreciated.

Ed WA4NJY
Bradenton, Fl

[Non-text portions of this message have been removed]

19994. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 13:43:15 UTC
From: Garey Barrell
Topic: 19951 Message: 19994

Kevin -

Welcome! My Son's name is Kevin, but I won't hold that against you!! :-)

You probably have a bad V2. Not much point doing anything else until you swap in a known good tube.

The socket with the jumper plug in it is for the accessory 4-NB Noise Blanker. If the blanker
is not installed, the jumper must be in there for the receiver to work.

It would be useful to know the s/n of the TR-4 as there are eight (8) different versions.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kk.n8vkx@... wrote:
> Well, I tried both the VOX and ANTIVOX controls and nothing changed. I'm not hearing any sidetone. I checked the voltages on V-19 and all were right except pin 2, it read .6 volts, and for a moment when keyed, .4 volts. I tried to read the voltages on V2 but there is a lot of wires in the road.
>
> [Non-text portions of this message have been removed]
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> ------------------------------------
>
> Yahoo Groups Links
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19995. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 13:45:28 UTC
From: Garey Barrell
Topic: 19951 Message: 19995

Don -

You bring up a good point!! Perhaps I should charge a 'consulting fee' or 'membership fee'...

Thanks for bringing that up! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> Kevin,
> Garey, K4OAH, is our resident guru on the tube type Drake gear and his
> suggestion to check V2 is what I would do. First, if you have access to
> another V2 tube, I would sub it. I don't have the schematic or manual
> pulled up, and my TR4 is a TR4C and I'm not sure that the tubes/numbers
> even come close to matching at this late hour, so I'll not try that, but
> as Garey said, if you can't hear the sidetone, that's a direct
> indication that it is the problem. Either the tube, or something within
> that tube's circuitry that generates the sidetone. Garey makes a neat
> CD that contains a WEALTH of information for a reasonable price on each
> of the 4 line rigs. See what he offers at www.k4oah.com and see if it
> would help you. I have bought them for ALL the rigs I own, as I find
> them a big help to me finding components, boards, and finding schematics
> and alignment procedures, etc. Your call, as his advice/help is still
> free, HI. Look at his postings and report back with what he asks, and
> you will get the rig operating like it should.
>
> Good luck!!!
> 73,
> Don, WB5HAK
> On 4/10/2014 10:01 PM, kk.n8vkx@... wrote:
>> Well, I tried both the VOX and ANTIVOX controls and nothing changed.
>> I'm not hearing any sidetone. I checked the voltages on V-19 and all
>> were right except pin 2, it read .6 volts, and for a moment when
>> keyed, .4 volts. I tried to read the voltages on V2 but there is a lot
>> of wires in the road.
>>
>>

19996. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 13:51:36 UTC
From: Don Cunningham
Topic: 19951 Message: 19996

Hi Garey,
I started to mention a phrase the "old timers" and I don't me me, the
REAL old timers around here use about the old hound dog on the porch.
They ALWAYS say, let the sleeping hound dawg lie, don't pull his tail if
he "ain't botherin' ya". On Jim Shorney, and your consulting fee, one
just should leave those lie, HI HI.
Good morning Sir!!!
73,
Don, WB5HAK
On 4/11/2014 8:45 AM, Garey Barrell wrote:
>
> Don -
>
> You bring up a good point!! Perhaps I should charge a 'consulting fee'
> or 'membership fee'...
>
> Thanks for bringing that up! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Don Cunningham wrote:
> > Kevin,
> > Garey, K4OAH, is our resident guru on the tube type Drake gear and his
> > suggestion to check V2 is what I would do. First, if you have access to
> > another V2 tube, I would sub it. I don't have the schematic or manual
> > pulled up, and my TR4 is a TR4C and I'm not sure that the tubes/numbers
> > even come close to matching at this late hour, so I'll not try that, but
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> > you will get the rig operating like it should.
> >
> > Good luck!!!
> > 73,

> > Don, WB5HAK
> > On 4/10/2014 10:01 PM, kk.n8vkx@... wrote:
> >> Well, I tried both the VOX and ANTIVOX controls and nothing changed.
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> >> keyed, .4 volts. I tried to read the voltages on V2 but there is a lot
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http://www.avast.com

[Non-text portions of this message have been removed]

19997. Re: [DrakeRadio] TR-7 on AM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 14:22:00 UTC
From: Joe Pyles
Topic: 4547 Message: 19997

You can put the AM filter in that position but
the carrier will not centered in the passband.
Jim Shorney NU0C posted this in 2008 on the Drakelist:

https://www.mail-archive.com/drakelist@.../msg09892.html

73 Joe, KC9LAD

At 09:23 AM 4/11/2014, you wrote:
>
>
>I have been using my TR-7 on AM with good
>results. My understanding is the transmit
>goes through the stock 2.3kc filter, carrier and one sideband.
>
>Can a 6kc filter be used in place of the stock
>filter to gain a wider tx bandwidth? Not to be used on SSB.
>
>I am aware of the modification by Jeff
>Covelli. My TR-7 is almost perfect condition
>and don't really want to change much from original.
>
>Any input will be appreciated.
>
>Ed WA4NJY
>Bradenton, Fl
>
>[Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

19998. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 14:33:26 UTC
From: <clwelsch@...>
Topic: 12987 Message: 19998

Hello Garey,

The only element in common to the problem was the band switch S1C. I cleaned the switch around the contacts and the 10 m bands were all ok! Whereas on the 15m band, I didn't get anything at all. The previous owner might have tried some adjustments there, so I tried to adjust L5 and T2 following TR-4C manual. Now it works great!

Now I'm looking for R187 to adjust the S-Meter and can't find it.

Also I am looking for a way to adjust the dials on the TR-4C and haven't found yet!! That was much easier on the TR-4.

By the way, is there a source for new transmitter coils for the TR-4? Also for the PC1-PC2-PC3 resistor-coil suppressors.

Thanks, Garey

Claude

[Non-text portions of this message have been removed]

19999. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 15:08:14 UTC
From: Garey Barrell
Topic: 12987 Message: 19999

Claude -

Cool! Always nice when one is 'fixed'. :-)

R187 is the blue trimpot just to the right of the AF OUTPUT transformer.

There are one or two flat 'levers' on top of the PTO gearbox. Pressing down on either of these
will release the dial wheel(s) allowing you to rotate them to read correctly.

A list member just mentioned acquiring a large number of spare parts. You might try a direct
email to him for what you need.

<ai4ji (at) yahoo (dot) com>

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

clwelsch@... wrote:
> Hello Garey,
>
> The only element in common to the problem was the band switch S1C. I cleaned the switch around the contacts and the 10 m bands were all ok! Whereas on the 15m band, I didn't get anything at all. The previous owner might have tried some adjustments there, so I tried to adjust L5 and T2 following TR-4C manual. Now it works great!
>
>
> Now I'm looking for R187 to adjust the S-Meter and can't find it.
>
>
> Also I am looking for a way to adjust the dials on the TR-4C and haven't found yet!! That was much easier on the TR-4.
>
>
> By the way, is there a source for new transmitter coils for the TR-4? Also for the PC1-PC2-PC3 resistor-coil suppressors.
>
>
> Thanks, Garey
>
>
> Claude

>
>

20000. R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 17:09:18 UTC
From: Ed Tanton
Topic: 20000 Message: 20000

After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!

Ed Tanton N4XY n4xy@comcast.net

189 Pioneer Trail

Marietta, GA 30068-3466

U.S.A.

website: http://www.n4xy.com <http://www.n4xy.com/>

Member: ARRL(LM) AMSAT(LM)

QCWA(LM) SEDXC NCDXF INDEXA(LM)

OKQRP Elecraft K2 Beta Tester

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Norton AntiVirus with AutoProtect

[Non-text portions of this message have been removed]

20001. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 17:19:43 UTC
From: Dan Galligan
Topic: 20000 Message: 20001

Of course, there are always the big companies, like International Crystal.
But, I have done business, a few times with Bry Carling AF4K bcarling@cfl.rr.com, and found him to be a very good source of crystals. Honest, good prices, fast turnaround, and a member of this group.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 11, 2014, at 12:09, Ed Tanton <n4xy@...> wrote:
>
> After a number of years, I am bringing ?up? my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
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>
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> website: http://www.n4xy.com <http://www.n4xy.com/>
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> Member: ARRL(LM) AMSAT(LM)
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> OKQRP Elecraft K2 Beta Tester
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20002. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 17:32:30 UTC
From: Garey Barrell
Topic: 20000 Message: 20002

Hi Ed -

International Crystal <icmfg.com> is still the reference source, and Ham owned.

800-725-1426 Just tell Sara what it's for and they have the specs. It WILL be on frequency.

Make sure the fuse is 0.75A Fast blow and plug it in! If you're really concerned, stick a 40W
light bulb in series with the line first. If it flashes bright and then dims in a few seconds,
THEN plug it in!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ed Tanton wrote:
> After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
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> website: http://www.n4xy.com <http://www.n4xy.com/>
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> Member: ARRL(LM) AMSAT(LM)
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> OKQRP Elecraft K2 Beta Tester

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20003. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 17:38:59 UTC
From: Don Cunningham
Topic: 20000 Message: 20003

Ed,
Most especially, if it's for your primary station receiver, I wouldn't use anyone but International Crystal. Garey gave you the name of the knowledgeable lady, Sara, and the number. They guarantee them to be right on, and they will be. Well worth the money. Still family, ham owned and always has been.
73,
Don, WB5HAK
On 4/11/2014 12:09 PM, Ed Tanton wrote:
>
> After a number of years, I am bringing ‘up’ my mint R-4B for use as my
> primary station receiver. I have a set of 30M xtals for both R-4C &
> T-4XC. I have NOT been paying proper attention to crystal sources. I
> would like suggestions for good vendors, and any comments on things to
> do first, and potential trouble spots. Thanks!
>
> Ed Tanton N4XY n4xy@...
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> website: http://www.n4xy.com <http://www.n4xy.com/>
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> All emails <IN> & <OUT> checked by
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> Norton AntiVirus with AutoProtect
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This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20004. Re: [DrakeRadio] TR4cw & epay items

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:05:16 UTC
From: Chgypsy@...
Topic: 20004 Message: 20004

Hi all,
Assume many of you are watching the "new" TR4cw on Epay.
If you haven't done so, go to the parties other listings as there is a
"spare" NB for sale also, along with an RV4, and an MS4. I did not note a PS.
All look to be absolutely "new" so cannot disagree.
Carl wd8nhk

BTW # 310926447712 gets you the TR4cw

[Non-text portions of this message have been removed]

20005. RE: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:25:42 UTC
From: Ed Tanton
Topic: 20000 Message: 20005

I am a friend of Bry's and have also always found him to be scrupulously honest. I just didn't think about him for Drake receiver crystals. I'm looking for the extra 10M xtals, and maybe some other WWV xtals. Thanks Dan.

Ed Tanton

website: http://www.n4xy.com

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Norton AntiVirus with AutoProtect

Wag more / Bark less

-----Original Message-----
From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Dan Galligan
Sent: 11 April, 2014 1:20 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4B Crystals source?

Of course, there are always the big companies, like International Crystal. But, I have done business, a few times with Bry Carling AF4K bcarling@..., and found him to be a very good source of crystals. Honest, good prices, fast turnaround, and a member of this group.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".
Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 11, 2014, at 12:09, Ed Tanton <n4xy@...> wrote:
>
> After a number of years, I am bringing □up□ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like

suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
>
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>
> Ed Tanton N4XY n4xy@...
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> 189 Pioneer Trail
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> website: http://www.n4xy.com <http://www.n4xy.com/>
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> Member: ARRL(LM) AMSAT(LM)
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Yahoo Groups Links

20006. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:31:50 UTC
From: Garey Barrell
Topic: 20000 Message: 20006

Ed -

Perhaps I misunderstood. Your C-Line crystals will work just fine the B-Line.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ed Tanton wrote:
> After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
>
>

20007. RE: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:37:20 UTC
From: Ed Tanton
Topic: 20000 Message: 20007

Thanks Garey! I've done business with them before-although it's been years-and was quite satisfied back then. Will call 'em. This receiver is such a jewel! I bought it in 1998 from a very nice guy in Canada, and besides the original bill of sale, it even came with the set of labels Drake would include back then (still unused!) Perfect copper. I figure I'll go ahead and get a set of spare tubes, double check that fuse, Caig D5 the switches, and connect a speaker & the HyTower, and see what happens.

Once that is done, I'm doing the Heathkit Shop AC-4 upgrade board, and will then start on the T-4XC. I have your 4 series CDs here somewhere close to the PC Desk.

Ed Tanton

website: http://www.n4xy.com <http://www.n4xy.com/>

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Wag more / Bark less

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: 11 April, 2014 1:33 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4B Crystals source?

Hi Ed -

International Crystal <icmfg.com> is still the reference source, and Ham owned.

800-725-1426 Just tell Sara what it's for and they have the specs. It WILL be on frequency.

///snip

[Non-text portions of this message have been removed]

20008. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:38:09 UTC
From: <clwelsch@...>
Topic: 12987 Message: 20008

Hello Garey,

Ok for the R187, it seems to be the right one...but I don't find any levers on the VFO gearbox??
I took the front plate off and the ring on the VFO and managed to adjust the position, but I suppose this isn't the normal way to proceed...

Greetings

Claude

[Non-text portions of this message have been removed]

20009. RE: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:43:54 UTC
From: Ed Tanton
Topic: 20000 Message: 20009

No, it’s an R-4B to be used with a T-4XC. Come to think of that, I’ll probably have to get the 28-28.5 xtal for the T-4XC. I will likely NOT be using this station on SSB. Hence xcve is not going to be needed unless I change my mind. (I have NEVER worked more than 0.5% SSB, if that.)

Ed Tanton

website: http://www.n4xy.com <http://www.n4xy.com/>

All emails <IN> & <OUT> checked by
Norton AntiVirus with AutoProtect

Wag more / Bark less

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: 11 April, 2014 2:32 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4B Crystals source?

Ed -

Perhaps I misunderstood. Your C-Line crystals will work just fine the B-Line.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

[Non-text portions of this message have been removed]

20010. Re: [DrakeRadio] TR4cw & epay items

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:12:10 UTC
From: Doug Coffman
Topic: 20004 Message: 20010

Speaker scratched from use. Label on noise blanker in 4cw/rit looks like it may have been used somewhere else unless it's just the picture. He says they are all NOS. NOT sure if he knows what NOS is but some of it looks used, very nice but used.

Sent from my iPhone

> On Apr 11, 2014, at 14:05, Chgypsy@... wrote:
>
> Hi all,
> Assume many of you are watching the "new" TR4cw on Epay.
> If you haven't done so, go to the parties other listings as there is a
> "spare" NB for sale also, along with an RV4, and an MS4. I did not note a PS.
> All look to be absolutely "new" so cannot disagree.
> Carl wd8nhk
>
> BTW # 310926447712 gets you the TR4cw
>
> [Non-text portions of this message have been removed]
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20011. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 18:59:36 UTC
From: L L bahr
Topic: 20000 Message: 20011

If you buy a crystal for a Drake radio, you will be making a BIG mistake not ordering it from a company like ICM. They have the specs to make it on frequency based on the crystal loading. Sara will charge around $23 for the crystal. The other ham source is a mistake as they are not ground for any specific crystal capacitance loading and they will cost around $16. Buy a crystal made for your radio. (here is more to it then just the marked frequency on the crystal.)
Lee, w0vt

----- Original Message -----

From: "Garey Barrell" <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Friday, April 11, 2014 12:32:30 PM
Subject: Re: [DrakeRadio] R-4B Crystals source?

Hi Ed -

International Crystal <icmfg.com> is still the reference source, and Ham owned.

800-725-1426 Just tell Sara what it's for and they have the specs. It WILL be on frequency.

Make sure the fuse is 0.75A Fast blow and plug it in! If you're really concerned, stick a 40W
light bulb in series with the line first. If it flashes bright and then dims in a few seconds,
THEN plug it in!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ed Tanton wrote:
> After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
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> U.S.A.
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> website: http://www.n4xy.com <http://www.n4xy.com/>
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20012. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 19:25:16 UTC
From: Richard Knoppow
Topic: 20000 Message: 20012

-----Original Message-----
>From: Ed Tanton <n4xy@...>
>Sent: Apr 11, 2014 10:09 AM
>To: DrakeRadio@yahoogroups.com
>Subject: [DrakeRadio] R-4B Crystals source?
>
>After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
>
>
>
>Ed Tanton N4XY n4xy@...
>
>189 Pioneer Trail
>
>Marietta, GA 30068-3466
>
>U.S.A.

I have a full set of crystals in my R4B for both the WARC bands and 10 meters with the exception of 60 meters. I got the 10 mhz crystal from Bri Carling and the others from International Crystal. Bri is a little cheaper. All work fine. I had no problems with them. I use the receiver to control the transmitter (T4XB) as a tranceiver for all of the above.

20013. Re: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 19:33:38 UTC
From: L L bahr
Topic: 20000 Message: 20013

Do yourself a favor and order one from Sara at ICM. Price is around $23. She has the specs for your radio. (It will be ground for the correct loading.) Just tell her which crystal you need for your radio and she will do the rest.
Lee, w0vt

----- Original Message -----

From: "Richard Knoppow" <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, April 11, 2014 2:25:16 PM
Subject: Re: [DrakeRadio] R-4B Crystals source?

-----Original Message-----
>From: Ed Tanton <n4xy@...>
>Sent: Apr 11, 2014 10:09 AM
>To: DrakeRadio@yahoogroups.com
>Subject: [DrakeRadio] R-4B Crystals source?
>
>After a number of years, I am bringing ‘up’ my mint R-4B for use as my primary station receiver. I have a set of 30M xtals for both R-4C & T-4XC. I have NOT been paying proper attention to crystal sources. I would like suggestions for good vendors, and any comments on things to do first, and potential trouble spots. Thanks!
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>
>Ed Tanton N4XY n4xy@...
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>189 Pioneer Trail
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>Marietta, GA 30068-3466
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>U.S.A.

I have a full set of crystals in my R4B for both the WARC bands and 10 meters with the exception of 60 meters. I got the 10 mhz crystal from Bri Carling and the others from International Crystal. Bri is a little cheaper. All work fine. I had no problems with them. I use the receiver to control the transmitter (T4XB) as a tranceiver for all of the above.

[Non-text portions of this message have been removed]

20014. Re: [DrakeRadio] NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 19:51:12 UTC
From: <w1es1982@...>
Topic: 19991 Message: 20014

It's now at $815.

It's in stunningly perfect condition.

W1ES

---- David Nichols <hamcomm7@...> wrote:
> They are going nuts for the new in the box TR-4CW rit on ebay! Its been there a few hours and started at $9.99, already at $610.00.. It is very nice looking along with the vfo and speaker. All sold separately but I did get to drool at the pictures for a while. These babies will fetch TOP DOLLAR!
>
> David, KX7C
>
>
> [Non-text portions of this message have been removed]
>

20015. RE: [DrakeRadio] NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 19:55:01 UTC
From: Doug Coffman
Topic: 19991 Message: 20015

There was one, several months ago, that was plugged in and all light up. It was stunning as well, very nice to actually see some of them well preserved.

I’m guessing that someone will pay upwards of $1800 for it. Should we take a pool and see who wins? HiHi

N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w1es1982@...
Sent: Friday, April 11, 2014 3:51 PM
To: DrakeRadio@yahoogroups.com
Cc: David Nichols
Subject: Re: [DrakeRadio] NIB TR-4CW rit

It's now at $815.

It's in stunningly perfect condition.

W1ES

---- David Nichols <hamcomm7@... <mailto:hamcomm7@...> > wrote:
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>
> David, KX7C
>
>
> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20016. RE: [DrakeRadio] NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 20:42:04 UTC
From: <w1es1982@...>
Topic: 19991 Message: 20016

I've mentioned this before, for those who pooh-pooh such lofty prices for a nearly NOS or NOS set: it's what's known in collector circles as a condition rarity. Similar to a MS-68 coin or a common 1960's car with only a couple hundred miles on it. People will pay a very hefty premium for something like this.

I predict $1700.

Steve, W1ES/4

---- Doug Coffman <dj_coffman@...> wrote:
> There was one, several months ago, that was plugged in and all light up. It was stunning as well, very nice to actually see some of them well preserved.
>
>
>
> I’m guessing that someone will pay upwards of $1800 for it. Should we take a pool and see who wins? HiHi
>
>
>
> N9XTF
>
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>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w1es1982@...
> Sent: Friday, April 11, 2014 3:51 PM
> To: DrakeRadio@yahoogroups.com
> Cc: David Nichols
> Subject: Re: [DrakeRadio] NIB TR-4CW rit
>
>
>
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>
> It's now at $815.
>
> It's in stunningly perfect condition.
>
> W1ES
>
> ---- David Nichols <hamcomm7@... <mailto:hamcomm7@...> > wrote:
> > They are going nuts for the new in the box TR-4CW rit on ebay! Its been there a few hours and started at $9.99, already at $610.00.. It is very nice looking along with the vfo and speaker. All sold separately but I did get to drool at the pictures for a while. These

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> > David, KX7C
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20017. Re: [DrakeRadio] TR-7 on AM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 20:59:36 UTC
From: Jim Shorney
Topic: 4547 Message: 20017

A variant of Jeff's mod with my changes to center the passband is the way to go. That way your retain proper SSB capability should the need arise. I recently contacted W1AW/7 in Washington on 10 and 15 Meters AM and had the opportunity to ask him for an audio report. He told me that I had "lovely" audio and even picked up on the fact that I was transmitting full DSB AM on a rig that it was not normal to expect that from.

On the outside my rig appears to be perfectly stock, even the STORE switch functions normally. All of the action takes place under the hood.

73

-Jim
NU0C

On Fri, 11 Apr 2014 10:22:00 -0400, Joe Pyles wrote:

>You can put the AM filter in that position but
>the carrier will not centered in the passband.
>Jim Shorney NU0C posted this in 2008 on the Drakelist:
>
>https://www.mail-archive.com/drakelist@.../msg09892.html
>
>73 Joe, KC9LAD
>
>
>
>At 09:23 AM 4/11/2014, you wrote:
>>
>>
>>I have been using my TR-7 on AM with good
>>results. My understanding is the transmit
>>goes through the stock 2.3kc filter, carrier and one sideband.
>>
>>Can a 6kc filter be used in place of the stock
>>filter to gain a wider tx bandwidth? Not to be used on SSB.
>>
>>I am aware of the modification by Jeff
>>Covelli. My TR-7 is almost perfect condition
>>and don't really want to change much from original.
>>
>>Any input will be appreciated.
>>
>>Ed WA4NJY
>>Bradenton, Fl
>>

>>[Non-text portions of this message have been removed]
>>
>>
>
>
>
>[Non-text portions of this message have been removed]
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20018. Re: [DrakeRadio] NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 21:09:02 UTC
From: GRANT YOUNGMAN
Topic: 19991 Message: 20018

Both of you are likely in the ballpark :)

There?s always at least one guy who got a NIB perfect something or other and found it (1) while dumpster diving, (2) at a yard sale for $25, (3) laying on the side of the road, etc. I have yet to get that lucky ..

There?s at least one other example floating around eBay right now ? an AN/URR-39. Now this is basically an NC-183D with a speaker and a rack. But it hit over $1200 in under 24 hours, and I?d wager it will sell somewhere north of $2K. It?s essentially new and unused, and you just don?t see NIB stuff from that era or the TR-4CWRit era all that often. Worth a whole lot to collectors who have the money to indulge. One hopes that the people who acquire these kinds of radios will continue to preserve them and keep them in the found condition.

I just hope that some of this good stuff is left after I hit the lottery, and by the time that happens that I still remember who I am :)

Grant NQ5T

On Apr 11, 2014, at 3:42 PM, w1es1982@... wrote:

>
> I've mentioned this before, for those who pooh-pooh such lofty prices for a nearly NOS or NOS set: it's what's known in collector circles as a condition rarity. Similar to a MS-68 coin or a common 1960's car with only a couple hundred miles on it. People will pay a very hefty premium for something like this.
>
> I predict $1700.
>
> Steve, W1ES/4
>
> ---- Doug Coffman <dj_coffman@yahoo.com> wrote:
> > There was one, several months ago, that was plugged in and all light up. It was stunning as well, very nice to actually see some of them well preserved.
> >
> >
> >
> > I?m guessing that someone will pay upwards of $1800 for it. Should we take a pool and see who wins? HiHi
> >
>

[Non-text portions of this message have been removed]

20019. RE: [DrakeRadio] R-4B Crystals source?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 21:59:03 UTC
From: Ed Tanton
Topic: 20000 Message: 20019

Thanks Lee & Richard!

Ed Tanton

website: http://www.n4xy.com <http://www.n4xy.com/>

All emails <IN> & <OUT> checked by
Norton AntiVirus with AutoProtect

Wag more / Bark less

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of L L bahr

Do yourself a favor and order one from Sara at ICM. Price is around $23. She has the specs for your radio. (It will be ground for the correct loading.) Just tell her which crystal you need for your radio and she will do the rest.
Lee, w0vt

----- Original Message -----
///snip

I have a full set of crystals in my R4B for both the WARC bands and 10 meters with the exception of 60 meters. I got the 10 mhz crystal from Bri Carling and the others from International Crystal. Bri is a little cheaper. All work fine. I had no problems with them. I use the receiver to control the transmitter (T4XB) as a tranceiver for all of the above.

///snip

[Non-text portions of this message have been removed]

20020. Re: [DrakeRadio] T4XB Parasitic Choke?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 22:46:29 UTC
From: Team Karst
Topic: 19819 Message: 20020

Hi David; I'm looking for a T4X relay; they are solder in, not pluggied in. Maybe also a T4x meter. I'm ex-MOT, from two way in Plantation. 73's!

WB4SPT Fairport, NY
On Saturday, April 5, 2014 7:58 PM, "David E. Rudd, CET WCM" <ai4ji@...> wrote:

Hi Dave,

  Give me a day or two to check my inventory.

  This is for the group as well...
I have acquired a dear friend of mine's estate. I have a huge lot of spare parts, a couple cabinets and 8 boxes full of repair parts and tubes. I also have several complete sets. Here are the sets that I currently have:

Drake ...
Qty 5 - TR-4 xcvr
Qty 4 - TR-4C xcvr
Qty 4 - TR-4Cw xcvr
Qty 4 - T-4XC xmtr
Qty 1 - R-4B rcvr
Qty 2 - R-4C rcvr with upgrades
Qty 1 - R-2C rcvr
Qty 1 - L-4B with P/S
Qty 2 - L-4B without P/S
Qty 2 - RV-4 remote VFO
Qty 2 - RV-4C remote VFO
Qty 4 - MS-4 speaker

Swan 700cx xcvr with P/S

National 109 rcvr and matching speaker

Heathkit DX-40 with matching VF-1 VFO

Heathkit DX-40

Lots of Sure desk mics.

I have cleaned and aligned a TR-4Cw with the matching speaker and power supply and sold it to a friend of mine at work. I'm a communications systems engineer for Motorola in Atlanta. I maintain the big public safety systems and 911 centers.

Anyhow, he is very pleased with the rig. These all look nearly new. Little or no signs of wear.

All I can tell you is that my friend and his father had these up in NY. I'm fairly sure they had an electronics business up there and probably sold Ham Radio gear.

I will be offering this equipment for sale, and spare / repair parts as well. I remember seeing like 20 new relays, a drawer full of the red front lamps and retaining clips, blue plexiglass, pots, filters, circuit boards, knobs, feet, upgrade kits, tons of stuff!

If anyone in the group is looking for specific items, let me know what you need and I'll see if I have it or not.

Thanks for having a look.

David E. Rudd, CET WCM
de AI4JI

Sent from my iPhone AI4JI

On Apr 5, 2014, at 19:31, <n1ohn@...> wrote:

>Hello all.
>
>
>I just received my TX4B from EBay today and it needs a new Choke Plate (PC-1,2) any one know were I can find one lol?
>
>
>Thanks!
>Dave

[Non-text portions of this message have been removed]

20021. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-11 23:43:51 UTC
From: <rochep@...>
Topic: 19953 Message: 20021

I think the problem might be mechanical. I was tweaking/pushing around on some of the caps on the passband tuning board while on 0.4 kc bandwidth setting and my signal REALLY popped up. I suspect switch S1/tuning board might have a bad solder joint/broken wire. How hard it is to get the passband tuning board/switch OFF of the radio?

paul

[Non-text portions of this message have been removed]

20022. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 01:07:56 UTC
From: <rochep@...>
Topic: 19953 Message: 20022

SUCCESS!! Looking at the passband tuner board and jiggling those caps, I noticed that C4 (the big 0.015 mfd cap from switch to ground) was NOT soldered to the lug on the switch!! It was just looped through!! So a touch of solder and BAM!!! Success. Now when I switch from 4.8 down to 0.4 kc bandwidth I do NOT lose my signal strength!!! Weird! I think this cap is ONLY in the circuit on 0.4 and 1.2 kc settings; these were the settings that were killing me. So all seems good, back to USING the radio!

paul

[Non-text portions of this message have been removed]

20023. Re: [DrakeRadio] TR-7 on AM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 01:22:09 UTC
From: <wa4njy@...>
Topic: 4547 Message: 20023

Ok, Thanks for the reply. This TR-7 is not too bad on AM. Some guys are surprised it is one sideband.
I will leave well enough alone.

73,
Ed

[Non-text portions of this message have been removed]

20024. RE: [DrakeRadio] NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 00:09:46 UTC
From: David Harmon
Topic: 19991 Message: 20024

I don’t doubt that price at all.

In 98’ I paid $1000 for a TR4-CW/rit in at least as good condition as the ebay unit….meaning…..there was not a mark on it.

The only difference I can see is that my unit s/n is several hundred later.

I heard guys talking on 80mtrs about that ‘TR-4 that sold for $1000….what an idiot etc on and on’.

For a while I was wondering if I had lost my mind but mebby not.

No…it is not for sale.

73

David Harmon

K6XYZ

Sperry, OK

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@...m] On Behalf Of w1es1982@...
Sent: Friday, April 11, 2014 3:42 PM
To: DrakeRadio@yahoogroups.com
Cc: Doug Coffman
Subject: RE: [DrakeRadio] NIB TR-4CW rit

I've mentioned this before, for those who pooh-pooh such lofty prices for a nearly NOS or NOS set: it's what's known in collector circles as a condition rarity. Similar to a MS-68 coin or a common 1960's car with only a couple hundred miles on it. People will pay a very hefty premium for something like this.

I predict $1700.

Steve, W1ES/4

---- Doug Coffman <dj_coffman@...> wrote:
> There was one, several months ago, that was plugged in and all light up. It was stunning as well, very nice to actually see some of them well preserved.
>
>
>
> I’m guessing that someone will pay upwards of $1800 for it. Should we take a pool and see who wins? HiHi
>
>
>

> N9XTF
>
>
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of w1es1982@...
> Sent: Friday, April 11, 2014 3:51 PM
> To: DrakeRadio@yahoogroups.com
> Cc: David Nichols
> Subject: Re: [DrakeRadio] NIB TR-4CW rit
>
>
>
>
>
>
>
> It's now at $815.
>
> It's in stunningly perfect condition.
>
> W1ES
>
> ---- David Nichols <hamcomm7@... <mailto:hamcomm7@...> > wrote:
> > They are going nuts for the new in the box TR-4CW rit on ebay! Its been there a few hours and started at $9.99, already at $610.00.. It is very nice looking along with the vfo and speaker. All sold separately but I did get to drool at the pictures for a while. These babies will fetch TOP DOLLAR!
> >
> > David, KX7C
> >
> >
> > [Non-text portions of this message have been removed]
> >
>
>
>
>
>
> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20025. TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 09:03:36 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20025

Hi All,

The "Down-Under" TR-4C restoration is still moving along steadily. Went QRT for a week while I ordered in some 6EA8's from states-side. I had one in V3 that would cause loud crackles and pops occasionally and would do so on demand if you tapped it with a plastic alignment tool.

Having sorted that I have now worked the alignments to the stage that I have the following TX output power on tune:-

3.5 = 200w
7.0 = 200w
14.0 = 200w
21.0 = 160w
28.0 = 120w
28.5 = 120w
29.1 = 2w :-((Yep that's right only two watts)

Main low DC supply voltages don't appear to worry the output any. Of course my watt meter may be reading high but at least I'm in the right ball-park.

I'm so close to getting this right! But still the rig wishes to test me to see if I'm worthy.

So the question is:-

"Why do I have essentially no output on 29.1?"

The 29.1 band position does not appear to "Peak" the RX audio with the RF Tune control. The RX audio gets slightly louder when the RF Tune is maxed out towards the 10 position but no controllable peak as such.

I swapped the 29.1 and 28.5 crystals around in their sockets. I could peak the RF Tune in the 28.5 position with the 29.1 band crystal installed in that socket. I did not try and tune up. The 29.1 band position remained non-peakable (if that's a word) with the 28.5 band crystal installed.

Checked continuity from the 43.6Mhz (29.1 Band) crystal through switch S1B (F) to pin 8 of V1 and it looks good.

So for the moment I'm out of ideas.

Help...

73, Steve.

PS. Just threw both crystals into the XTAL Calibration socket of an old TV Sweep generator. The only means this shack currently has of testing that a crystal oscillates (something I shall have to remedy).

Got 14313.79KHz and 14512.51Khz which looks more or less like the correct fundamental of the 3rd overtone. So I "think" the crystals are both good.

20026. Looking for a C-4 Bezel

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 11:06:39 UTC
From: <mikek4qu@...>
Topic: 20026 Message: 20026

If anyone has a spare C-4 clock bezel, please let me know. I may end up CNC machining one out of aluminum.
73, Mike K4QU

[Non-text portions of this message have been removed]

20027. RE: [DrakeRadio] Looking for a C-4 Bezel

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 12:21:31 UTC
From: wayne.smith
Topic: 20026 Message: 20027

MIke, I have one. PM me at oilieone@...

73

Wayne

K5FEX

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of mikek4qu@...
Sent: Saturday, April 12, 2014 6:07 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Looking for a C-4 Bezel

If anyone has a spare C-4 clock bezel, please let me know. I may end up CNC machining one out of aluminum.
73, Mike K4QU

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20028. RE: [DrakeRadio] Looking for a C-4 Bezel

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 13:14:38 UTC
From: <mikek4qu@...>
Topic: 20026 Message: 20028

Wayne, Thanks for the reply.
Email is mikek4qu@...
Thanks and 73, Mike K4QU

[Non-text portions of this message have been removed]

20029. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 14:26:31 UTC
From: Garey Barrell
Topic: 4547 Message: 20029

Hi Steve -

Beginning to wonder if you had just chucked it out the window!! :-)

What voltage do you measure on the T.P. for the three 10M crystals?? Seems the problem is in
the oscillator stage since your crystal swap produced the results it did.

If the 10(3) crystal is low, (likely,) try peaking L2. If it comes up to where the others are,
then go back down to see if they are still ok.

The design is that L2 is peaked on the highest band, and then the next two switch positions down
have a small wire loop between contacts to increase the inductance. Of course examine the switch contacts associated with this, but I can't see how this problem could be affected by switch contacts.

Your other band outputs look great, fresh new PA tubes are so nice!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
> The "Down-Under" TR-4C restoration is still moving along steadily. Went
> QRT for a week while I ordered in some 6EA8's from states-side. I had one
> in V3 that would cause loud crackles and pops occasionally and would do so
> on demand if you tapped it with a plastic alignment tool.
>
> Having sorted that I have now worked the alignments to the stage that I
> have the following TX output power on tune:-
>
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> 7.0 = 200w
> 14.0 = 200w
> 21.0 = 160w
> 28.0 = 120w
> 28.5 = 120w
> 29.1 = 2w :-((Yep that's right only two watts)
>
> Main low DC supply voltages don't appear to worry the output any. Of

> course my watt meter may be reading high but at least I'm in the right
> ball-park.
>
> I'm so close to getting this right! But still the rig wishes to test me to
> see if I'm worthy.
>
> So the question is:-
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> "Why do I have essentially no output on 29.1?"
>
> The 29.1 band position does not appear to "Peak" the RX audio with the RF
> Tune control. The RX audio gets slightly louder when the RF Tune is maxed
> out towards the 10 position but no controllable peak as such.
>
> I swapped the 29.1 and 28.5 crystals around in their sockets. I could peak
> the RF Tune in the 28.5 position with the 29.1 band crystal installed in
> that socket. I did not try and tune up. The 29.1 band position remained
> non-peakable (if that's a word) with the 28.5 band crystal installed.
>
> Checked continuity from the 43.6Mhz (29.1 Band) crystal through switch S1B
> (F) to pin 8 of V1 and it looks good.
>
> So for the moment I'm out of ideas.
>
> Help...
>
> 73, Steve.
>
> PS. Just threw both crystals into the XTAL Calibration socket of an old TV
> Sweep generator. The only means this shack currently has of testing that a
> crystal oscillates (something I shall have to remedy).
>
> Got 14313.79KHz and 14512.51Khz which looks more or less like the correct
> fundamental of the 3rd overtone. So I "think" the crystals are both good.
>
>

20030. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-12 23:59:53 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20030

> Hi Steve -
>
> Beginning to wonder if you had just chucked it out the window!! :-)
>

Never!!! This rig is just too darn good looking for that fate!

I admit at one point I was idly wondering how much it would cost to ship it back stateside to someone like WB4HFN, have it repaired properly and then shipped back. But without checking I guess I could save my money and be in the running for a bid on that mint NOS TR-4CW RIT currently running on greedy-Bay at $990 USD! :-)

But then I wouldn't learn anything. And besides, the machine wouldn't have any "soul" (as added by me) as Bill "Soldersmoke" N2CQR might say.

> What voltage do you measure on the T.P. for the three 10M crystals??

I have the following voltages on the T.P.

(3.5) = +0.8
7 = -2.02
(14) = +0.7
21 = -1.55
28.0 = -0.954
28.5 = -0.994
29.1 = -0.836

This *IS* with L2 peaked for 29.1

What sort of voltage range are we looking for here? The manual doesn't really say.

73, Steve

> Seems the problem is in
> the oscillator stage since your crystal swap produced the results it did.
>
> If the 10(3) crystal is low, (likely,) try peaking L2. If it comes up to
> where the others are,
> then go back down to see if they are still ok.
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> The design is that L2 is peaked on the highest band, and then the next two
> switch positions down
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20031. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 01:53:23 UTC
From: Garey Barrell
Topic: 4547 Message: 20031

Steve -

Remember the DrakeRadio mantra .... 'We do this for fun...' 'We do this for fun...' 'We do this for ..... :-)

You could probably buy a counter and scope for the shipping charges!

I normally expect -1 to -2 VDC at the TP. Of course there is no oscillation on 80 and 40M, hence the + voltages.

I don't suppose you have a counter or a receiver that will cover up to 45 MHz.....

VERY strange that the 29.1 MHz crystal works ok in the 28.5 slot and vice versa..... I'm having
a hard time reconciling that..... I interpreted your statement that the radio works ok when
the 29.1 MHz crystal is in the 28.5 slot, and has full output on 29.1 MHz in the 28.5 BAND switch setting??? Do you have a way to generate a signal on say 28.6 and 29.1 MHz to see if the crystals are actually oscillating where they're supposed to?

Hopefully someone else is following this thread and might have an idea.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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>> switch contacts associated with this, but I can't see how this problem
>> could be affected by
>> switch contacts.
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>> Your other band outputs look great, fresh new PA tubes are so nice!!
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>> 73, Garey - K4OAH
>> Glen Allen, VA
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Steve VK2SJA wrote:
>>> Hi All,
>>>
>>> The "Down-Under" TR-4C restoration is still moving along steadily. Went
>>> QRT for a week while I ordered in some 6EA8's from states-side. I had
>>> one
>>> in V3 that would cause loud crackles and pops occasionally and would do
>>> so

>>> on demand if you tapped it with a plastic alignment tool.
>>>
>>> Having sorted that I have now worked the alignments to the stage that I
>>> have the following TX output power on tune:-
>>>
>>> 3.5 = 200w
>>> 7.0 = 200w
>>> 14.0 = 200w
>>> 21.0 = 160w
>>> 28.0 = 120w
>>> 28.5 = 120w
>>> 29.1 = 2w :-((Yep that's right only two watts)
>>>
>>> Main low DC supply voltages don't appear to worry the output any. Of
>>> course my watt meter may be reading high but at least I'm in the right
>>> ball-park.
>>>
>>> I'm so close to getting this right! But still the rig wishes to test me
>>> to
>>> see if I'm worthy.
>>>
>>> So the question is:-
>>>
>>> "Why do I have essentially no output on 29.1?"
>>>
>>> The 29.1 band position does not appear to "Peak" the RX audio with the
>>> RF
>>> Tune control. The RX audio gets slightly louder when the RF Tune is
>>> maxed
>>> out towards the 10 position but no controllable peak as such.
>>>
>>> I swapped the 29.1 and 28.5 crystals around in their sockets. I could
>>> peak
>>> the RF Tune in the 28.5 position with the 29.1 band crystal installed in
>>> that socket. I did not try and tune up. The 29.1 band position remained
>>> non-peakable (if that's a word) with the 28.5 band crystal installed.
>>>
>>> Checked continuity from the 43.6Mhz (29.1 Band) crystal through switch
>>> S1B
>>> (F) to pin 8 of V1 and it looks good.
>>>
>>> So for the moment I'm out of ideas.
>>>
>>> Help...
>>>
>>> 73, Steve.
>>>
>>> PS. Just threw both crystals into the XTAL Calibration socket of an old
>>> TV
>>> Sweep generator. The only means this shack currently has of testing that

>>> a
>>> crystal oscillates (something I shall have to remedy).
>>>
>>> Got 14313.79KHz and 14512.51Khz which looks more or less like the
>>> correct
>>> fundamental of the 3rd overtone. So I "think" the crystals are both
>>> good.
>>>
>>>

20032. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 01:56:14 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20032

Hi Garey/All,

Some additional information and a correction;-

Power out on 29.1 is *not* 2 watts but in fact 200 mW. (I had the meter set to 1/10 not x1).

It finally dawned on me to connect the frequency counter to the T.P. I have:-

42.985 MHz for the 43MHz crystal and
43.582 MHz for the 43.6MHz crystal (29.1 band)

So they are both oscillating at about the right place.

I did find an oddity. My TR-4C serial number is 36805. The circuit diagram I have been using, which I think is the latest (SN 42500+) shows R154 as 1.5K and nothing other than L11 connected to pin 6 of V1.

But my radio seems to physically match circuit (SN 35161+) with pin 6 V1 also connected to C9 and S1C (F). But with this circuit R154 is shown as being 560ohms and not 1.5K. Since my +250v is low I changed it. Didn't help any - still only 200mW on 29.1

Should I put it back the way it was?

Off to have some lunch and a coffee while I try and think of something sensible/logical to test next.

73, Steve.

>> Hi Steve -
>>
>> Beginning to wonder if you had just chucked it out the window!! :-)
>>
>
> Never!!! This rig is just too darn good looking for that fate!
>
> I admit at one point I was idly wondering how much it would cost to ship
> it back stateside to someone like WB4HFN, have it repaired properly and
> then shipped back. But without checking I guess I could save my money and
> be in the running for a bid on that mint NOS TR-4CW RIT currently running
> on greedy-Bay at $990 USD! :-)
>
> But then I wouldn't learn anything. And besides, the machine wouldn't have
> any "soul" (as added by me) as Bill "Soldersmoke" N2CQR might say.
>
>> What voltage do you measure on the T.P. for the three 10M crystals??
>

> I have the following voltages on the T.P.
>
> (3.5) = +0.8
> 7 = -2.02
> (14) = +0.7
> 21 = -1.55
> 28.0 = -0.954
> 28.5 = -0.994
> 29.1 = -0.836
>
> This *IS* with L2 peaked for 29.1
>
> What sort of voltage range are we looking for here? The manual doesn't
> really say.
>
> 73, Steve
>
>
>
>> Seems the problem is in
>> the oscillator stage since your crystal swap produced the results it
>> did.
>>
>> If the 10(3) crystal is low, (likely,) try peaking L2. If it comes up
>> to
>> where the others are,
>> then go back down to see if they are still ok.
>>
>> The design is that L2 is peaked on the highest band, and then the next
>> two
>> switch positions down
>> have a small wire loop between contacts to increase the inductance. Of
>> course examine the
>> switch contacts associated with this, but I can't see how this problem
>> could be affected by
>> switch contacts.
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>>> (F) to pin 8 of V1 and it looks good.
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>>> So for the moment I'm out of ideas.
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>>> 73, Steve.
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>>> PS. Just threw both crystals into the XTAL Calibration socket of an old
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>>> Sweep generator. The only means this shack currently has of testing
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>>> crystal oscillates (something I shall have to remedy).
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>>
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>
>

20033. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 02:20:11 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20033

> Steve -
>
> Remember the DrakeRadio mantra .... 'We do this for fun...' 'We do this
> for fun...' 'We do this for ..... :-)

Yes, we do indeed!

> I don't suppose you have a counter or a receiver that will cover up to 45
> MHz.....

Counter Yes. General coverage SSB receiver? Not really, most of my gear is ham bands only. I do have a scanner that might work at that frequency but it would be FM or AM only.

> VERY strange that the 29.1 MHz crystal works ok in the 28.5 slot and vice
> versa..... I'm having
> a hard time reconciling that..... I interpreted your statement that the
> radio works ok when
> the 29.1 MHz crystal is in the 28.5 slot, and has full output on 29.1 MHz
> in the 28.5 BAND
> switch setting???

I did not try and tune up with the crystals in those positions. I just noted that I could peak the RX audio. If you want I can try swap them again and tune up on 29.1 using the 28.5 socket.

> Do you have a way to generate a signal on say 28.6
> and 29.1 MHz to see if
> the crystals are actually oscillating where they're supposed to?

Yes. I'll report back.

73, Steve.

> Hopefully someone else is following this thread and might have an idea.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> it back stateside to someone like WB4HFN, have it repaired properly and
>> then shipped back. But without checking I guess I could save my money
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>> be in the running for a bid on that mint NOS TR-4CW RIT currently
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>> on greedy-Bay at $990 USD! :-)
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>> any "soul" (as added by me) as Bill "Soldersmoke" N2CQR might say.
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>> 29.1 = -0.836
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>> This *IS* with L2 peaked for 29.1
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>> What sort of voltage range are we looking for here? The manual doesn't
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>> 73, Steve
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>>> Seems the problem is in
>>> the oscillator stage since your crystal swap produced the results it
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>>> If the 10(3) crystal is low, (likely,) try peaking L2. If it comes up
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>>> The design is that L2 is peaked on the highest band, and then the next
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>>> 73, Garey - K4OAH
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>>>> I'm so close to getting this right! But still the rig wishes to test
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>>>> So the question is:-
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>>>> "Why do I have essentially no output on 29.1?"
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>>>> The 29.1 band position does not appear to "Peak" the RX audio with the

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>>>> Tune control. The RX audio gets slightly louder when the RF Tune is
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>>>> non-peakable (if that's a word) with the 28.5 band crystal installed.
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>>>> Checked continuity from the 43.6Mhz (29.1 Band) crystal through switch
>>>> S1B
>>>> (F) to pin 8 of V1 and it looks good.
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>>>> So for the moment I'm out of ideas.
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>>>> Help...
>>>>
>>>> 73, Steve.
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>>>> PS. Just threw both crystals into the XTAL Calibration socket of an
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>>>> good.
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20034. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 02:20:56 UTC
From: Garey Barrell
Topic: 4547 Message: 20034

Steve -

Ah..... That makes me wonder if the PA or Driver stage is not making contact with the inductor
in the third 10M position, 10(3)..

Ensure that L6 and L7 are actually being shorted in the 10(3) position of the BAND switch.

Your radio should match schematic 35161+. Use the correct schematic, we don't need any other
anomalies to distract us or have to account for!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Garey/All,
>
> Some additional information and a correction;-
>
> Power out on 29.1 is *not* 2 watts but in fact 200 mW. (I had the meter
> set to 1/10 not x1).
>
> It finally dawned on me to connect the frequency counter to the T.P. I have:-
>
> 42.985 MHz for the 43MHz crystal and
> 43.582 MHz for the 43.6MHz crystal (29.1 band)
>
> So they are both oscillating at about the right place.
>
> I did find an oddity. My TR-4C serial number is 36805. The circuit diagram
> I have been using, which I think is the latest (SN 42500+) shows R154 as
> 1.5K and nothing other than L11 connected to pin 6 of V1.
>
> But my radio seems to physically match circuit (SN 35161+) with pin 6 V1
> also connected to C9 and S1C (F). But with this circuit R154 is shown as
> being 560ohms and not 1.5K. Since my +250v is low I changed it. Didn't
> help any - still only 200mW on 29.1
>
> Should I put it back the way it was?
>
> Off to have some lunch and a coffee while I try and think of something

> sensible/logical to test next.
>
> 73, Steve.
>
>
>>> Hi Steve -
>>>
>>> Beginning to wonder if you had just chucked it out the window!! :-)
>>>
>> Never!!! This rig is just too darn good looking for that fate!
>>
>> I admit at one point I was idly wondering how much it would cost to ship
>> it back stateside to someone like WB4HFN, have it repaired properly and
>> then shipped back. But without checking I guess I could save my money and
>> be in the running for a bid on that mint NOS TR-4CW RIT currently running
>> on greedy-Bay at $990 USD! :-)
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>> But then I wouldn't learn anything. And besides, the machine wouldn't have
>> any "soul" (as added by me) as Bill "Soldersmoke" N2CQR might say.
>>
>>> What voltage do you measure on the T.P. for the three 10M crystals??
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>> 28.0 = -0.954
>> 28.5 = -0.994
>> 29.1 = -0.836
>>
>> This *IS* with L2 peaked for 29.1
>>
>> What sort of voltage range are we looking for here? The manual doesn't
>> really say.
>>
>> 73, Steve
>>
>>

20035. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 02:41:57 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20035

Hi Garey,

I promise to only use the correct schematic from here on in. Hadn't realized I had the wrong one until I found this oddity and went looking on your most excellent service guide.

Using the internal Marker Out frequency on the afore mentioned TV Sweep Generator I can confirm that plus/minus dial calibration (which I have not done yet) the radio is receiving correctly on both the 28.5 and 29.1 bands.

I'll now swap the crystals 28.5 for 29.1 and see if I can tune up on 29.1 using the 28.5 position.

73, Steve.

> Steve -
>
> Ah..... That makes me wonder if the PA or Driver stage is not making
> contact with the inductor
> in the third 10M position, 10(3)..
>
> Ensure that L6 and L7 are actually being shorted in the 10(3) position of
> the BAND switch.
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> Your radio should match schematic 35161+. Use the correct schematic, we
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>> 73, Steve.
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>>> really say.
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>>> 73, Steve
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20036. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 03:06:15 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20036

Update:-

Placing the 29.1 crystal in the 28.5 slot caused me to have to readjust L2 as the T.P. voltage went positive. Re-adjusted to -0.855 and attempted to tune up. No different.

Now I need to make a correction to the correction. The power meter I'm using has x1/10th, x1 and x10 scales (blame me I built it). I'm reading 20/10 = 2 watts. So I reported this correctly the first time and then got myself confused. I just swapped over for another el-cheap-o power meter and it also shows about 2 watts. So 2 watts out is correct and not 200mW - sorry about the confusion.

So we *are* making some power. Just not a lot.

I just tried tuning up on 28.5 again after swapping back the crystals into the correct sockets and peaking L2 again. For some reason I'm only making ~= 80 watts this morning not the 120w I made yesterday. And I have NO idea why! This is the thing I find most frustrating. Inexplicable inconsistencies!

Anyway. Suffice to say. We have reasonable power out on 28.5 (and all other bands) but near nothing on 29.1

Still looking...

We do this for fun... We do this for fun... We do this......

73, Steve.

> Hi Garey,
>
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> realized I had the wrong one until I found this oddity and went looking on
> your most excellent service guide.
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> Using the internal Marker Out frequency on the afore mentioned TV Sweep
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>>>> (14) = +0.7
>>>> 21 = -1.55
>>>> 28.0 = -0.954
>>>> 28.5 = -0.994
>>>> 29.1 = -0.836
>>>>
>>>> This *IS* with L2 peaked for 29.1
>>>>
>>>> What sort of voltage range are we looking for here? The manual doesn't
>>>> really say.
>>>>
>>>> 73, Steve
>>>>
>>>>
>>
>>
>

>
>

20037. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 07:00:40 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20037

Another update:-

Well I now have significant power on 29.1, please don't ask how I did it because I don't really know :-(

I decided to start all-over again and do all the alignments from scratch.

After this I now have:-

T.P. voltages:

3.5 = (+0.878)
7.0 = -1.942
14.0 = (+0.870)
21.0 = -1.480
28.0 = -0.913
28.5 = -0.931
29.1 = -0.814

Tuning for max power out I get:-

3.5 ~= 200w
7.0 ~= 200w
14.0 ~= 200w
21.0 ~= 40w
28.0 ~= 60w
28.5 ~= 100w
29.1 ~= 80w

So I now have significant power out on 29.1. But what happened to my beautiful power out figures from yesterday for 21.0, 28.0 and 28.5 which are all down like this:-

21.0 was 160w now 40w
28.0 was 120w now 60w
28.5 was 120w now 100w

Frustration is not the word! (we do this for fun...). Measurement error? Perhaps. But I "think" it comes down to three things:-

1. I truly have no idea what I'm doing! ;-)

2. This time round I did the alignments *without* the alignment dummy load. Previously I had made up a dummy load and carefully followed the book. But I was getting very impatient and it is much quicker to do them without the dummy load of course. I'm with Garey on this one guys. It makes tuning the rig very sharp and somewhat unpredictable (possibly with with double dips). In short I think I'm now tuning it wrong because it's

harder/trickier to do. So I shall laboriously go back and do all the "5-16 MIXER & RF ALIGNMENTS" one more time *with* the dummy load and then see what happens.

3. The 21.0MHz band is possibly down because I've cracked the slug in L6 and can't adjust it. Yes, I was using a proper plastic alignment tool (a cheap one) but it cracked anyway. I'll post a separate WTB on this part but does anyone have any ideas for repair or substitute? I shall have to pull it out and measure it but does anyone know what it's nominal inductance is supposed to be?

Well that's enough chaos from me for one day. Easter Long Weekend next weekend here in Australia and I'm taking the Wife and Kids away on a well deserved holiday. So I'll check back in a couple of weeks.

Very 73, to All.

Steve.
VK2SJA

> Update:-
>
> Placing the 29.1 crystal in the 28.5 slot caused me to have to readjust L2
> as the T.P. voltage went positive. Re-adjusted to -0.855 and attempted to
> tune up. No different.
>
> Now I need to make a correction to the correction. The power meter I'm
> using has x1/10th, x1 and x10 scales (blame me I built it). I'm reading
> 20/10 = 2 watts. So I reported this correctly the first time and then got
> myself confused. I just swapped over for another el-cheap-o power meter
> and it also shows about 2 watts. So 2 watts out is correct and not 200mW -
> sorry about the confusion.
>
> So we *are* making some power. Just not a lot.
>
> I just tried tuning up on 28.5 again after swapping back the crystals into
> the correct sockets and peaking L2 again. For some reason I'm only making
> ~= 80 watts this morning not the 120w I made yesterday. And I have NO idea
> why! This is the thing I find most frustrating. Inexplicable
> inconsistencies!
>
> Anyway. Suffice to say. We have reasonable power out on 28.5 (and all
> other bands) but near nothing on 29.1
>
> Still looking...
>
> We do this for fun... We do this for fun... We do this......
>
> 73, Steve.
>
>

>
>> Hi Garey,
>>
>> I promise to only use the correct schematic from here on in. Hadn't
>> realized I had the wrong one until I found this oddity and went looking
>> on
>> your most excellent service guide.
>>
>> Using the internal Marker Out frequency on the afore mentioned TV Sweep
>> Generator I can confirm that plus/minus dial calibration (which I have
>> not
>> done yet) the radio is receiving correctly on both the 28.5 and 29.1
>> bands.
>>
>> I'll now swap the crystals 28.5 for 29.1 and see if I can tune up on
>> 29.1
>> using the 28.5 position.
>>
>> 73, Steve.
>>
>>
>>> Steve -
>>>
>>> Ah..... That makes me wonder if the PA or Driver stage is not making
>>> contact with the inductor
>>> in the third 10M position, 10(3)..
>>>
>>> Ensure that L6 and L7 are actually being shorted in the 10(3) position
>>> of
>>> the BAND switch.
>>>
>>> Your radio should match schematic 35161+. Use the correct schematic,
>>> we
>>> don't need any other
>>> anomalies to distract us or have to account for!!
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Steve VK2SJA wrote:
>>>> Hi Garey/All,
>>>>
>>>> Some additional information and a correction;-
>>>>
>>>> Power out on 29.1 is *not* 2 watts but in fact 200 mW. (I had the
>>>> meter

>>>> set to 1/10 not x1).
>>>>
>>>> It finally dawned on me to connect the frequency counter to the T.P. I
>>>> have:-
>>>>
>>>> 42.985 MHz for the 43MHz crystal and
>>>> 43.582 MHz for the 43.6MHz crystal (29.1 band)
>>>>
>>>> So they are both oscillating at about the right place.
>>>>
>>>> I did find an oddity. My TR-4C serial number is 36805. The circuit
>>>> diagram
>>>> I have been using, which I think is the latest (SN 42500+) shows R154
>>>> as
>>>> 1.5K and nothing other than L11 connected to pin 6 of V1.
>>>>
>>>> But my radio seems to physically match circuit (SN 35161+) with pin 6
>>>> V1
>>>> also connected to C9 and S1C (F). But with this circuit R154 is shown
>>>> as
>>>> being 560ohms and not 1.5K. Since my +250v is low I changed it. Didn't
>>>> help any - still only 200mW on 29.1
>>>>
>>>> Should I put it back the way it was?
>>>>
>>>> Off to have some lunch and a coffee while I try and think of something
>>>> sensible/logical to test next.
>>>>
>>>> 73, Steve.
>>>>
>>>>
>>>>>> Hi Steve -
>>>>>>
>>>>>> Beginning to wonder if you had just chucked it out the window!! :-)
>>>>>>
>>>>> Never!!! This rig is just too darn good looking for that fate!
>>>>>
>>>>> I admit at one point I was idly wondering how much it would cost to
>>>>> ship
>>>>> it back stateside to someone like WB4HFN, have it repaired properly
>>>>> and
>>>>> then shipped back. But without checking I guess I could save my money
>>>>> and
>>>>> be in the running for a bid on that mint NOS TR-4CW RIT currently
>>>>> running
>>>>> on greedy-Bay at $990 USD! :-)
>>>>>
>>>>> But then I wouldn't learn anything. And besides, the machine wouldn't
>>>>> have
>>>>> any "soul" (as added by me) as Bill "Soldersmoke" N2CQR might say.

>>>>>
>>>>>> What voltage do you measure on the T.P. for the three 10M crystals??
>>>>> I have the following voltages on the T.P.
>>>>>
>>>>> (3.5) = +0.8
>>>>> 7 = -2.02
>>>>> (14) = +0.7
>>>>> 21 = -1.55
>>>>> 28.0 = -0.954
>>>>> 28.5 = -0.994
>>>>> 29.1 = -0.836
>>>>>
>>>>> This *IS* with L2 peaked for 29.1
>>>>>
>>>>> What sort of voltage range are we looking for here? The manual
>>>>> doesn't
>>>>> really say.
>>>>>
>>>>> 73, Steve
>>>>>
>>>>>
>>>
>>>
>>
>>
>>
>
>
>

20038. WTB: L6 21MHz Inductor for TR4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 09:21:55 UTC
From: Steve VK2SJA
Topic: 20038 Message: 20038

Hi All,

I'm in need of a L6 inductor for a TR4 as mine has a cracked core and cannot be adjusted. This is used for 21MHz. I'm assuming for the moment that all TR4's have he same L6 part (Garey?) But specifically mine is for a TR-4C.

If anybody has one they can sell me one please e-mail me at:-

vk2sja (at_) bigpond (dot) com

Thanks!

73, Steve.
VK2SJA

20039. Re: [DrakeRadio] WTB: L6 21MHz Inductor for TR4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 09:39:28 UTC
From: Jim Wiley
Topic: 20038 Message: 20039

Steve -

Lacking anything better, I suspect that pretty much any old ferrite core that will fit into the form will do. You may have to pick the old core apart with a dental pick or similar tool to get it out of the coil, but it's already broken, so you can't hurt it much worse - HI. Even if the replacement core is not a precise match, it is a good bet that it will work well enough to get the job done. All you need to do is tune the coil to the correct frequency - how you do it doesn't really matter.

- Jim, KL7CC

On 4/13/2014 1:21 AM, Steve VK2SJA wrote:
>
> Hi All,
>
> I'm in need of a L6 inductor for a TR4 as mine has a cracked core and
> cannot be adjusted. This is used for 21MHz. I'm assuming for the moment
> that all TR4's have he same L6 part (Garey?) But specifically mine is for
> a TR-4C.
>
> If anybody has one they can sell me one please e-mail me at:-
>
> vk2sja (at_) bigpond (dot) com
>
> Thanks!
>
> 73, Steve.
> VK2SJA
>

[Non-text portions of this message have been removed]

20040. Missing power found (mostly)!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 11:58:58 UTC
From: Steve VK2SJA
Topic: 4547 Message: 20040

Hi All,

Well I did a partial re-alignment again (got motivated after dinner) using a *new* alignment dummy load that I made up. It's is probably my imagination but it does seem somewhat easier to tune up.

But the real culprit turned out to be V3. I had changed it during all the "playing around" today for one of my recently arrived NOS 6EA8 (branded Philips) tubes. Back swapped and "wham" I can now easily hit 100 watts on 28 and 28.5 again and for the first time I can do the same on 29.1.

Sadly 21.0 is still down at 60 odd watts but I'm putting this down to a broke L6 for the moment.

Lesson learnt. Do one thing at a time. Test afterwards and write what you did down!

One step forward (and two back?)

So next step. Repair or replace L6. Then do a full re-alignment yet again. I'm getting better at it :-) And then see what we have left.

Thanks for the help everyone and especially Garey.

BTW. I'll have to check back through the list history to see who it was that suggested it. But a very special thank-you to that person who suggested setting the 9Mhz BFO frequency by injecting a tone modulated carrier and adjusting for the same tone on either sideband. I tried it today. Easiest method I've found yet.

73, Steve

20041. L6 21MHz Inductor for TR4 = Fixed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 13:37:13 UTC
From: Steve VK2SJA
Topic: 20038 Message: 20041

Hi Jim/All,

I looked at doing that. But the original coil form is so fragile I think that you would destroy it getting the old cracked core out.

Anyway it doesn't matter now.

I found an old 23ch crystal CB radio carcass in the junk box and ripped out a similar sized coil form. My VK5JST Aerial Analyser called the old coil in at about 1000nH at 21Mhz. The one I ripped out of the old CB came in at 750nH. So a couple of experimental re-winds latter and I can now tune properly through the peak on both sides.

The power is back with a vengeance!! I am making way over 150 watts on 21 MHz now. :-)

So I touched up the new coil wire with some clear nail polish. I'll Let it dry overnight and then re-do all the alignments (yet again) another day.

But it would appear that my TR-4C is now making excellent power on all bands.

Just got to get a microphone connected now...

73, Steve.

> Steve -
>
> Lacking anything better, I suspect that pretty much any old ferrite core
> that will fit into the form will do. You may have to pick the old core
> apart with a dental pick or similar tool to get it out of the coil, but
> it's already broken, so you can't hurt it much worse - HI. Even if the
> replacement core is not a precise match, it is a good bet that it will
> work well enough to get the job done. All you need to do is tune the
> coil to the correct frequency - how you do it doesn't really matter.
>
> - Jim, KL7CC
>
>
> On 4/13/2014 1:21 AM, Steve VK2SJA wrote:
>>
>> Hi All,
>>
>> I'm in need of a L6 inductor for a TR4 as mine has a cracked core and
>> cannot be adjusted. This is used for 21MHz. I'm assuming for the moment
>> that all TR4's have he same L6 part (Garey?) But specifically mine is
>> for
>> a TR-4C.

>>
>> If anybody has one they can sell me one please e-mail me at:-
>>
>> vk2sja (at_) bigpond (dot) com
>>
>> Thanks!
>>
>> 73, Steve.
>> VK2SJA
>>
>
>
>
> [Non-text portions of this message have been removed]
>
>

20042. Re: [DrakeRadio] TR-4C No power on 29.1?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 14:21:13 UTC
From: Garey Barrell
Topic: 4547 Message: 20042

Steve -

OK, now let's look in the right place. The problem does NOT appear to be in the BAND OSC stages. Measuring the TP voltage pretty well settled that.

When you come back from your well deserved vacation, we'll start over.....

Way back in the beginning, do you recall the hardware check? Put a screwdriver on every screw in
the thing, be it a ground lug, terminal strip, component board, tube socket, shield, etc., etc.,
and tighten it. IF it's already tight, loosen and re-tighten.

Then go through and put a drop of DeoxIT on each switch tag you can get to, and on wipers where
the tags are inaccessible and exercise them thoroughly.

Perhaps someone has an L6 or L7 from a donor radio.

Then an alignment and look with fresh eyes for discrepancies.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Another update:-
>
> Well I now have significant power on 29.1, please don't ask how I did it
> because I don't really know :-(
>
> I decided to start all-over again and do all the alignments from scratch.
>
> After this I now have:-
>
> T.P. voltages:
>
> 3.5 = (+0.878)
> 7.0 = -1.942
> 14.0 = (+0.870)
> 21.0 = -1.480
> 28.0 = -0.913
> 28.5 = -0.931
> 29.1 = -0.814

>
> Tuning for max power out I get:-
>
> 3.5 ~= 200w
> 7.0 ~= 200w
> 14.0 ~= 200w
> 21.0 ~= 40w
> 28.0 ~= 60w
> 28.5 ~= 100w
> 29.1 ~= 80w
>
> So I now have significant power out on 29.1. But what happened to my
> beautiful power out figures from yesterday for 21.0, 28.0 and 28.5 which
> are all down like this:-
>
> 21.0 was 160w now 40w
> 28.0 was 120w now 60w
> 28.5 was 120w now 100w
>
> Frustration is not the word! (we do this for fun...). Measurement error?
> Perhaps. But I "think" it comes down to three things:-
>
> 1. I truly have no idea what I'm doing! ;-)
>
> 2. This time round I did the alignments *without* the alignment dummy
> load. Previously I had made up a dummy load and carefully followed the
> book. But I was getting very impatient and it is much quicker to do them
> without the dummy load of course. I'm with Garey on this one guys. It
> makes tuning the rig very sharp and somewhat unpredictable (possibly with
> with double dips). In short I think I'm now tuning it wrong because it's
> harder/trickier to do. So I shall laboriously go back and do all the "5-16
> MIXER & RF ALIGNMENTS" one more time *with* the dummy load and then see
> what happens.
>
> 3. The 21.0MHz band is possibly down because I've cracked the slug in L6
> and can't adjust it. Yes, I was using a proper plastic alignment tool (a
> cheap one) but it cracked anyway. I'll post a separate WTB on this part
> but does anyone have any ideas for repair or substitute? I shall have to
> pull it out and measure it but does anyone know what it's nominal
> inductance is supposed to be?
>
> Well that's enough chaos from me for one day. Easter Long Weekend next
> weekend here in Australia and I'm taking the Wife and Kids away on a well
> deserved holiday. So I'll check back in a couple of weeks.
>
> Very 73, to All.
>
> Steve.
> VK2SJA
>

>

20043. Re: [DrakeRadio] Missing power found (mostly)!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 14:31:13 UTC
From: Garey Barrell
Topic: 4547 Message: 20043

Steve -

Cool! I didn't read far enough ahead in my email!!

Sounds like you have it under control. Jim is correct any (RF) slug should work fine. There are many different materials used in slugs, but as long as it's from an RF device it should work. If it's the wrong material it may not adjust to peak, or it may change too much with temperature variations, but if it tunes it's probably ok.

Enjoy your vacation without this hanging over your head!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi All,
>
> Well I did a partial re-alignment again (got motivated after dinner) using
> a *new* alignment dummy load that I made up. It's is probably my
> imagination but it does seem somewhat easier to tune up.
>
> But the real culprit turned out to be V3. I had changed it during all the
> "playing around" today for one of my recently arrived NOS 6EA8 (branded
> Philips) tubes. Back swapped and "wham" I can now easily hit 100 watts on
> 28 and 28.5 again and for the first time I can do the same on 29.1.
>
> Sadly 21.0 is still down at 60 odd watts but I'm putting this down to a
> broke L6 for the moment.
>
> Lesson learnt. Do one thing at a time. Test afterwards and write what you
> did down!
>
> One step forward (and two back?)
>
> So next step. Repair or replace L6. Then do a full re-alignment yet again.
> I'm getting better at it :-) And then see what we have left.
>
> Thanks for the help everyone and especially Garey.
>
> BTW. I'll have to check back through the list history to see who it was
> that suggested it. But a very special thank-you to that person who
> suggested setting the 9Mhz BFO frequency by injecting a tone modulated

> carrier and adjusting for the same tone on either sideband. I tried it
> today. Easiest method I've found yet.
>
> 73, Steve
>
>

20044. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 14:33:29 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 20044

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

20045. Re: [DrakeRadio] L6 21MHz Inductor for TR4 = Fixed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 14:39:14 UTC
From: Garey Barrell
Topic: 20038 Message: 20045

Steve -

Some day perhaps I'll learn to go all the way through my email before responding!! :-) I must
be in the wrong time zone as about 100 - 150 come in overnight..... Or I'm sleeping too long.....

Congratulations! Not only do you have a working radio, you know a lot more about how it works.
This is what Ham Radio is all about.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Jim/All,
>
> I looked at doing that. But the original coil form is so fragile I think
> that you would destroy it getting the old cracked core out.
>
> Anyway it doesn't matter now.
>
> I found an old 23ch crystal CB radio carcass in the junk box and ripped
> out a similar sized coil form. My VK5JST Aerial Analyser called the old
> coil in at about 1000nH at 21Mhz. The one I ripped out of the old CB came
> in at 750nH. So a couple of experimental re-winds latter and I can now
> tune properly through the peak on both sides.
>
> The power is back with a vengeance!! I am making way over 150 watts on 21
> MHz now. :-)
>
> So I touched up the new coil wire with some clear nail polish. I'll Let it
> dry overnight and then re-do all the alignments (yet again) another day.
>
> But it would appear that my TR-4C is now making excellent power on all bands.
>
> Just got to get a microphone connected now...
>
> 73, Steve.
>

20046. Re: [DrakeRadio] L6 21MHz Inductor for TR4 = Fixed

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 15:04:02 UTC
From: Steve Toth
Topic: 20038 Message: 20046

-- Steve

"Technically.....the glass is ALWAYS full."

On Sun, 4/13/14, Steve VK2SJA <vk2sja@bigpond.com> wrote:

Subject: [DrakeRadio] L6 21MHz Inductor for TR4 = Fixed
To: DrakeRadio@yahoogroups.com
Date: Sunday, April 13, 2014, 6:37 AM

Hi Jim/All,

I looked at doing that. But the original coil form is so
fragile I think
that you would destroy it getting the old cracked core out.

Anyway it doesn't matter now.

I found an old 23ch crystal CB radio carcass in the junk box
and ripped
out a similar sized coil form. My VK5JST Aerial Analyser
called the old
coil in at about 1000nH at 21Mhz. The one I ripped out of
the old CB came
in at 750nH. So a couple of experimental re-winds latter and
I can now
tune properly through the peak on both sides.

The power is back with a vengeance!! I am making way over
150 watts on 21
MHz now. :-)

So I touched up the new coil wire with some clear nail
polish. I'll Let it
dry overnight and then re-do all the alignments (yet again)
another day.

But it would appear that my TR-4C is now making excellent
power on all bands.

Just got to get a microphone connected now...

73, Steve.

> Steve -
>
> Lacking anything better, I suspect that pretty much any

old ferrite core
> that will fit into the form will do. You may have
to pick the old core
> apart with a dental pick or similar tool to get it out
of the coil, but
> it's already broken, so you can't hurt it much worse -
HI.   Even if the
> replacement core is not a precise match, it is a good
bet that it will
> work well enough to get the job done. All you
need to do is tune the
> coil to the correct frequency - how you do it doesn't
really matter.
>
> - Jim, KL7CC
>
>
> On 4/13/2014 1:21 AM, Steve VK2SJA wrote:
>>
>> Hi All,
>>
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a cracked core and
>> cannot be adjusted. This is used for 21MHz. I'm
assuming for the moment
>> that all TR4's have he same L6 part (Garey?) But
specifically mine is
>> for
>> a TR-4C.
>>
>> If anybody has one they can sell me one please
e-mail me at:-
>>
>> vk2sja (at_) bigpond (dot) com
>>
>> Thanks!
>>
>> 73, Steve.
>> VK2SJA
>>
>
>
>
> [Non-text portions of this message have been removed]
>
>

Yahoo Groups Links

DrakeRadio-fullfeatured@yahoogroups.com

20047. New Soon to beDrake 4C Twins Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 19:42:09 UTC
From: Whitebear1122
Topic: 206 Message: 20047

I just sent off the money for an excellent condition Drake 4C twins setup so I'm very excited about finally owning this radio after all these years. When I first became interested in Boatanchors back around 1994 or so I wanted to acquire the 4C twins and a Johnson Ranger. I ended up owning 5 Rangers over the years and no 4C twins. Funny how that worked out or didn't work out :) In the past 3-4 years I've sold off over 80% of my radios but I still wanted to get the Drake radios and experience them.

I already have the coveted FS-4 frequency synthesizer that I bought from a good Florida friend 2 years ago. It's been sitting on the shelf waiting for me to buy a radio. I have a Drake W4 wattmeter that I've had since 1970 so that will go nice with the station. I do not have an L-4Basher though. Don't know if I want to get one or not. I think it would be fun to have with this set up. Maybe if I find one within driving distance I'll think again about getting one. I don't think they are easy to safely ship.

I'll post my comments when the radios get here and are hooked up and on the air!

73, Scott WA9WFA

20048. RE: Question about a 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 19:58:56 UTC
From: <kg0mn@...>
Topic: 20048 Message: 20048

To Garey, George and Ethan,
After going over the 2B and all the items suggested I found one cap that was marginal at best the with it and a new 6U8 I have a happily muted 2B to go with the Apache and HT-40. Thanks for the help guys. Ethan that page you suggested is a gold mine and I will be posting a link on my site referencing your site.

Kevin - KG0MN

[Non-text portions of this message have been removed]

20049. Re: [DrakeRadio] RE: Question about a 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 21:55:14 UTC
From: Ethan Blanton
Topic: 20048 Message: 20049

kg0mn@... spake unto us the following wisdom:
> After going over the 2B and all the items suggested I found one cap
> that was marginal at best the with it and a new 6U8 I have a happily
> muted 2B to go with the Apache and HT-40. Thanks for the help guys.
> Ethan that page you suggested is a gold mine and I will be posting a
> link on my site referencing your site.

Note that Garey and I had a very productive discussion about some
errors and omissions on that page, and I have since updated it! I'm
glad it was helpful.

Ethan

> Kevin - KG0MN
>
> [Non-text portions of this message have been removed]
>
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>
> Yahoo Groups Links
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20050. Re: [DrakeRadio] New Soon to beDrake 4C Twins Owner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-13 23:34:00 UTC
From: Steve Wedge
Topic: 206 Message: 20050

Welcome to the addiction, Scott.

You'll find a great group here who are willing to help at all times. Which receiver did you get - the one with 3 CW filter positions or 2?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Whitebear1122
Sent: Sunday, April 13, 2014 3:42 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] New Soon to beDrake 4C Twins Owner

I just sent off the money for an excellent condition Drake 4C twins setup so I'm very excited about finally owning this radio after all these years. When I first became interested in Boatanchors back around 1994 or so I wanted to acquire the 4C twins and a Johnson Ranger. I ended up owning 5 Rangers over the years and no 4C twins. Funny how that worked out or didn't work out :) In the past 3-4 years I've sold off over 80% of my radios but I still wanted to get the Drake radios and experience them.

I already have the coveted FS-4 frequency synthesizer that I bought from a good Florida friend 2 years ago. It's been sitting on the shelf waiting for me to buy a radio. I have a Drake W4 wattmeter that I've had since 1970 so that will go nice with the station. I do not have an L-4Basher though. Don't know if I want to get one or not. I think it would be fun to have with this set up. Maybe if I find one within driving distance I'll think again about getting one. I don't think they are easy to safely ship.

I'll post my comments when the radios get here and are hooked up and on the air!

73, Scott WA9WFA

[Non-text portions of this message have been removed]

20051. Re: [DrakeRadio] Re: CAL signal weak on high bands. Alignment?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 00:14:09 UTC
From: Team Karst
Topic: 19906 Message: 20051

My calibrator signal is very weak on 10M, and the receiver has close to 50uv sens at S9, using a HP8656B and MDS is around 0.1uV.. It's an 11 tube R4A.

WB4SPT Fairport, NY
On Tuesday, April 8, 2014 12:20 PM, Steve Wedge <w1es1982@...> wrote:

Remember that the calibrator is generating a 100 kHz square wave and you are actually listening to the various harmonics of that signal. As you go up on frequency, the power in the higher harmonics decreases.

If you have access to a signal generator, input a 50 uv signal at 28.8 MHz and you should be at or near S-9.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 8, 2014, at 10:29 AM, <rochep@...> wrote:
>
> Thanks, just trying to worry about something that does not need worrying about. I was able to barely hear AP2NK this morning on 15 meters on my new Kenwood TS-590S and also on the R4A; I think is is fine.
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20052. TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 00:48:02 UTC
From: <n1ohn@...>
Topic: 20052 Message: 20052

Hello all

I'm looking for a source for new 200pf and 100pf 2kv at 5% tolerance with the N470 tempco. Their replacing c65a, c65b, and c66 in my TX4B restoration. I Can't find any with the N470 tempco :(

Thanks
Dave :)

[Non-text portions of this message have been removed]

20053. Drake TR-22C 2 Meter Transceiver, External DC Input Coaxial Connector

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 01:41:38 UTC
From: <w5ilr@...>
Topic: 20053 Message: 20053

Can anyone please provide the Size of the external DC input coaxial connector? The manual doesn't provide this information.

Allan, W5ILR
Gulfport, Mississippi

[Non-text portions of this message have been removed]

20054. Needs More Drag 2 Be.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 05:41:50 UTC
From: lane denune
Topic: 20054 Message: 20054

Any tips for increasing the tuning drag on a 2B? Thanks, Lane de n8aft sk ..

[Non-text portions of this message have been removed]

20055. TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 06:00:07 UTC
From: Steve VK2SJA
Topic: 20038 Message: 20055

Hi Gents,

My TR-4C plate meter is pretty wild. Swings vigorously back and forth like no tomorrow. Makes tuning for the plate dip kind of hard. I notice in the list archives that this is not an uncommon issue. And that some have had success taming the swings with a capacitor across the meter terminals.

Question for anyone who has had success doing this:-

What value capacitor and type? Polarised elecro Ok in this circuit?
Voltage rating?

73, Steve

20056. Re: [DrakeRadio] TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 08:07:30 UTC
From: Jim Wiley
Topic: 20038 Message: 20056

Steve -

A small electrolytic should be fine. Since the "positive" meter deflection is only one way, the polarity will be unlikely to reverse. Most meters are marked with a + symbol on one terminal. Simply connect the + of the capacitor to the same point. The amount of damping will depend on the value of the capacitor. Start with 10 uFd or so, and see how it works. you can then adjust upward or downward in value until you get something that works for you. A 10-volt rated cap should be fine, but a higher voltage unit will work too. I would stay with something rated no more than 50 volts, however. This is to make sure the capacitor stays "formed".

- Jim, KL7CC

On 4/13/2014 10:00 PM, Steve VK2SJA wrote:
>
> Hi Gents,
>
> My TR-4C plate meter is pretty wild. Swings vigorously back and forth like
> no tomorrow. Makes tuning for the plate dip kind of hard. I notice in the
> list archives that this is not an uncommon issue. And that some have had
> success taming the swings with a capacitor across the meter terminals.
>
> Question for anyone who has had success doing this:-
>
> What value capacitor and type? Polarised elecro Ok in this circuit?
> Voltage rating?
>
> 73, Steve
>

[Non-text portions of this message have been removed]

20057. Re: [DrakeRadio] Needs More Drag 2 Be.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 12:33:24 UTC
From: Steve Wedge
Topic: 20054 Message: 20057

Lane, the tuning is driven by the dial cord, so there really isn't any adjustment, per se, but you may make it somewhat lighter if the pulleys in the corner have some lube (dry silicone or graphite - NO OIL!) and the tuning cap bearings have a drop of oil.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Apr 14, 2014, at 1:41 AM, lane denune <LanerDaner@...> wrote:
>
>
>
> Any tips for increasing the tuning drag on a 2B? Thanks, Lane de n8aft sk ..
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20058. Re: [DrakeRadio] Needs More Drag 2 Be.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 13:11:23 UTC
From: Barry
Topic: 20054 Message: 20058

Lane,

As Steve already replied, the drag can be reduced somewhat; however, I'm curious if you are really wanting to increase the drag?

Regards,
Barry - N4BUQ

----- Original Message -----
> From: "lane denune" <LanerDaner@yahoo.com>
> To: drakeradio@yahoogroups.com
> Sent: Monday, April 14, 2014 12:41:50 AM
> Subject: [DrakeRadio] Needs More Drag 2 Be.
>
>
>
> Any tips for increasing the tuning drag on a 2B? Thanks, Lane de
> n8aft sk ..
>
> [Non-text portions of this message have been removed]
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20059. Re: [DrakeRadio] Needs More Drag 2 Be.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 13:43:41 UTC
From: Garey Barrell
Topic: 20054 Message: 20059

Lane -

Actually, there is an adjustment for dial drag on the 2-B. The back end of the MAIN TUNING shaft
has a spring clip on it. If you want more drag, push that clip closer to the rear support to
increase the friction. One way to adjust is to use a small plier, another way is to push
alternately on the clip with a screwdriver, etc. Usually this is sufficient drag. If you want
more, you can put a fiber or cork washer between the clip and the bracket, but that results in a
pretty heavy drag....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

lane denune wrote:
>
> Any tips for increasing the tuning drag on a 2B? Thanks, Lane de n8aft sk ..
>
>

20060. Re: [DrakeRadio] TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 13:58:21 UTC
From: Garey Barrell
Topic: 20038 Message: 20060

Steve -

Yes, it's a type of failure in these meters. Very annoying! :-)

I've wondered if a bit of silicone grease on the bearing(s) might tame it down. That may be what was used originally, and after 40 years of the heat built up in these radios, (especially
without fans!,) the grease just evaporates.

The meter in the 2-NT suffered from this malady from the beginning. Drake in later models added
a 50 uF, 6V electrolytic directly across the meter terminals. Worked quite well. The cap needs
to be a low voltage one, otherwise it will lose capacitance over time.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
> Hi Gents,
>
> My TR-4C plate meter is pretty wild. Swings vigorously back and forth like
> no tomorrow. Makes tuning for the plate dip kind of hard. I notice in the
> list archives that this is not an uncommon issue. And that some have had
> success taming the swings with a capacitor across the meter terminals.
>
> Question for anyone who has had success doing this:-
>
> What value capacitor and type? Polarised elecro Ok in this circuit?
> Voltage rating?
>
> 73, Steve
>
>
>
>
> ------------------------------------
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> Yahoo Groups Links
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>

>

20061. Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 14:37:04 UTC
From: <w6mqi@...>
Topic: 19953 Message: 20061

Ah yes feels good doesn't it. I had a intermittent VFO on my C-line that drove me batty turned out to be a cap that was never soldered from the factory! nice one guys.

73,Dave

[Non-text portions of this message have been removed]

20062. Re: [DrakeRadio] Re: Very weak signals on narrow filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 14:43:35 UTC
From: Gary Woods
Topic: 19953 Message: 20062

On 14 Apr 2014 07:37:04 -0700, you wrote:

>Ah yes feels good doesn't it. I had a intermittent VFO on my C-line that drove me batty turned out to be a cap that was never soldered from the factory! nice one guys.

A thousand years ago, I remember Evans Radio in NH claiming they could find
at least one unsoldered connection in any factory-new Collins radio.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

20063. Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 19:24:18 UTC
From: <rochep@...>
Topic: 20063 Message: 20063

The AC4 has a little short RCA jack on it. To use with an R4A do hook the male cable from the MS4 directly to my R4A or do I connect the male cable from the MS4 to that little RCA female on the AC4? Or are these both essentially the same connections?

paul

[Non-text portions of this message have been removed]

20064. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 19:40:42 UTC
From: Don Cunningham
Topic: 20063 Message: 20064

Paul, the male RCA cable from the MS4 hooks directly to the R4A. The
little RCA jack on the AC4 is to key a linear amplifier. Drake did it
that way for whatever reason.
73,
Don, WB5HAK
On 4/14/2014 2:24 PM, rochep@... wrote:
>
> The AC4 has a little short RCA jack on it. To use with an R4A do hook
> the male cable from the MS4 directly to my R4A or do I connect the
> male cable from the MS4 to that little RCA female on the AC4? Or are
> these both essentially the same connections?
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

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[Non-text portions of this message have been removed]

20065. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 19:52:49 UTC
From: Joe W2KJ
Topic: 20063 Message: 20065

Unless I'm mistaken, believe the female RCA phono plug coming out of the AC4 is indeed the speaker connection.

The little two pin female connector on the AC4 is used to key an amplifier.

73, Joe W2KJ

On Apr 14, 2014, at 3:40 PM, Don Cunningham wrote:

> Paul, the male RCA cable from the MS4 hooks directly to the R4A. The
> little RCA jack on the AC4 is to key a linear amplifier. Drake did it
> that way for whatever reason.
> 73,
> Don, WB5HAK
> On 4/14/2014 2:24 PM, rochep@... wrote:
> >
> > The AC4 has a little short RCA jack on it. To use with an R4A do hook
> > the male cable from the MS4 directly to my R4A or do I connect the
> > male cable from the MS4 to that little RCA female on the AC4? Or are
> > these both essentially the same connections?
> >
> > paul
> >

20066. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 19:55:47 UTC
From: Chgypsy@...
Topic: 20063 Message: 20066

Paul,
I believe you will plug the MS4 into the back of the R4A.
By memory.
The harness that carried the speaker lead to the AC4 was for the speaker of a TR4. (maybe a TR3 too)
Carl wd8nhk

, rochep@... writes:

The AC4 has a little short RCA jack on it. To use with an R4A do hook the male cable from the MS4 directly to my R4A or do I connect the male cable from the MS4 to that little RCA female on the AC4? Or are these both essentially the same connections?

paul

[Non-text portions of this message have been removed]

20067. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 19:59:30 UTC
From: Don Cunningham
Topic: 20063 Message: 20067

Joe,
I may have mispoken and you are probably right, IF he means the short female jack on the end of the cord end. I had forgotten that one that was often used with the TR4's. I have never seen a speaker jack on an AC4 body though, that would be ALC, would it not (mispoke a bit there anyway, didn't I??). I should have just not responded, HI.
73,
Don, WB5HAK
On 4/14/2014 2:52 PM, Joe W2KJ wrote:
>
> Unless I'm mistaken, believe the female RCA phono plug coming out of
> the AC4 is indeed the speaker connection.
>
> The little two pin female connector on the AC4 is used to key an
> amplifier.
>
> 73, Joe W2KJ
>
> On Apr 14, 2014, at 3:40 PM, Don Cunningham wrote:
>
> > Paul, the male RCA cable from the MS4 hooks directly to the R4A. The
> > little RCA jack on the AC4 is to key a linear amplifier. Drake did it
> > that way for whatever reason.
> > 73,
> > Don, WB5HAK
> > On 4/14/2014 2:24 PM, rochep@... wrote:
> > >
> > > The AC4 has a little short RCA jack on it. To use with an R4A do hook
> > > the male cable from the MS4 directly to my R4A or do I connect the
> > > male cable from the MS4 to that little RCA female on the AC4? Or are
> > > these both essentially the same connections?
> > >
> > > paul
> > >
>
>

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[Non-text portions of this message have been removed]

20068. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:14:43 UTC
From: Steve Wedge
Topic: 20063 Message: 20068

The RCA female on the cable is the speaker connection only for the tr-3 and tr-4 transceivers. It's not connected to anything when used with a transmitter or reciter.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 14, 2014, at 3:52 PM, Joe W2KJ <jotrom@...> wrote:
>
> Unless I'm mistaken, believe the female RCA phono plug coming out of the AC4 is indeed the speaker connection.
>
> The little two pin female connector on the AC4 is used to key an amplifier.
>
> 73, Joe W2KJ
>
> On Apr 14, 2014, at 3:40 PM, Don Cunningham wrote:
>
> > Paul, the male RCA cable from the MS4 hooks directly to the R4A. The
> > little RCA jack on the AC4 is to key a linear amplifier. Drake did it
> > that way for whatever reason.
> > 73,
> > Don, WB5HAK
> > On 4/14/2014 2:24 PM, rochep@... wrote:
> > >
> > > The AC4 has a little short RCA jack on it. To use with an R4A do hook
> > > the male cable from the MS4 directly to my R4A or do I connect the
> > > male cable from the MS4 to that little RCA female on the AC4? Or are
> > > these both essentially the same connections?
> > >
> > > paul
> > >
>
>

[Non-text portions of this message have been removed]

20069. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:17:17 UTC
From: Richard Knoppow
Topic: 20063 Message: 20069

----- Original Message -----
From: "Don Cunningham" <donc@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 14, 2014 12:59 PM
Subject: Re: [DrakeRadio] Connecting an R4A to MS4/AC4
"speaker"

> Joe,
> I may have mispoken and you are probably right, IF he
> means the short
> female jack on the end of the cord end. I had forgotten
> that one that
> was often used with the TR4's. I have never seen a
> speaker jack on an
> AC4 body though, that would be ALC, would it not (mispoke
> a bit there
> anyway, didn't I??). I should have just not responded,
> HI.
> 73,
> Don, WB5HAK

There are two RCA conectors, one is on a short pigtail
from the Cinch-Jones plug at the transmitter side of the
power cable. This is for the loudspeaker for a TR-4 and some
other transceivers. To use it a cable with an RCA male plug
is run from the speaker to the female on the pigtail. It is
used only for the transceivers, not needed for separates.
The other RCA connector is on the chassis of the AC-4
and is for the ALC to the final amplfier. There is also an
odd oblong connector which is for the VOX relay in a final
amplifier. My memory is that this kind of connector was used
for 300 ohm twin lead, the plugs are hard to find so some
other kind of connector is often mounted in its place.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20070. Re: Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:23:30 UTC
From: <rochep@...>
Topic: 20063 Message: 20070

Thanks all. I was indeed talking about the short pigtail from the Cinch-Jones plug at the transmitter side of the power cable. I will leave it unhooked and connect MS4 directly to the R4A. Thanks.

paul

[Non-text portions of this message have been removed]

20071. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:23:38 UTC
From: Don Cunningham
Topic: 20063 Message: 20071

Paul, just hook the MS4 to the R4A. That's simplest way to say it.
73,
Don
On 4/14/2014 2:24 PM, rochep@... wrote:
>
> The AC4 has a little short RCA jack on it. To use with an R4A do hook
> the male cable from the MS4 directly to my R4A or do I connect the
> male cable from the MS4 to that little RCA female on the AC4? Or are
> these both essentially the same connections?
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

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[Non-text portions of this message have been removed]

20072. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:27:31 UTC
From: Garey Barrell
Topic: 20063 Message: 20072

Paul -

Carl was the first to get it right! :-)

The speaker plugs right in to the SPKR jack on the back of the R-4(any).

The RCA pigtail coming out of the AC-4 Jones connector was the speaker output for the TR-3/4(any). Only one plug to deal with when putting in or taking out of the intended MOBILE
location.

PLUS..... The AC-3 and early AC-4 didn't have the two-pin LINEAR connector to switch and external amp. Those of us who were 'early adopters' of the Twins, were known to have done surgery on the Jones connector to change that pigtail over to pins 5 and 8 to access the LINEAR
control contacts in the T-4X.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> The AC4 has a little short RCA jack on it. To use with an R4A do hook the male cable from the MS4 directly to my R4A or do I connect the male cable from the MS4 to that little RCA female on the AC4? Or are these both essentially the same connections?
>
> paul
>
> [Non-text portions of this message have been removed]
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20073. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:37:15 UTC
From: Garey Barrell
Topic: 20063 Message: 20073

One other variation is a late Drake modification. The two-pin plug was unobtainium even while
they were still being manufactured, so Drake sold a small kit consisting of a little metal plate
with an RCA jack in the center, and two holes to match up with the mounting holes for the two
pin connector on the AC-4.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> Joe,
> I may have mispoken and you are probably right, IF he means the short
> female jack on the end of the cord end. I had forgotten that one that
> was often used with the TR4's. I have never seen a speaker jack on an
> AC4 body though, that would be ALC, would it not (mispoke a bit there
> anyway, didn't I??). I should have just not responded, HI.
> 73,
> Don, WB5HAK
>

20074. Re: Needs More Drag 2 Be.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-14 20:39:37 UTC
From: lane denune
Topic: 20054 Message: 20074

Thanks guys, knew you'd come through for me again. no, it is Plenty touchy and loose so I'll try Garey's tip sometime, other than that, it is a super CW set up using the AVC mods and a Johnson TR switch. My 51j3 doesn't come close but it still has value, hi....73

[Non-text portions of this message have been removed]

20075. Re: [DrakeRadio] Connecting an R4A to MS4/AC4 "speaker"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 02:03:36 UTC
From: Charles Ahlgren
Topic: 20063 Message: 20075

Paul

The jack on the AC4 essentially is the audio from the TR4 series transceivers. There is no audio out on the radio itself. So plug the MS4 cable directly into the speaker jack on the R4a receiver.

On Monday, April 14, 2014, <rochep@...> wrote:

>
>
> The AC4 has a little short RCA jack on it. To use with an R4A do hook the
> male cable from the MS4 directly to my R4A or do I connect the male cable
> from the MS4 to that little RCA female on the AC4? Or are these both
> essentially the same connections?
>
> paul
>
> [Non-text portions of this message have been removed]
>
>
>

--
73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

[Non-text portions of this message have been removed]

20076. crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 03:55:17 UTC
From: David Nichols
Topic: 20076 Message: 20076

Is there a simple way to check this out? You know, with a freq counter, scope or something? The adjusting point is straight forward and as old as this thing is Ill be bubba couldnt resist putting the golden screwdriver to it. I would rather not monkey around with wwv and wrapping wire around a tube if I can do it with something else. This is a TR-4CW rit almost as new as the one on ebay now. Mine is 38 older.

David, KX7C

[Non-text portions of this message have been removed]

20077. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 04:05:40 UTC
From: <kk.n8vkx@...>
Topic: 19951 Message: 20077

I'm back. I couldn't get my hands on a V-2 (12av6) but I thought I'd try a few other tubes I could get a hold of that is used in the VOX circuit. Now I couldn't get an exact replacement for V-19(6ev7) but I found that a (6cg7) should work and turned the rig on, and after messing with the VOX controls I was able to KEY the radio with a strait key, BUT! after a few seconds the radio would not un-key. I would have to turn the radio of for a few seconds before turning it back on to get it back to receive
Follow me so far?
Now, am I barking up the wrong tree? Should I find another 12av6 and try that? Do I need to get a 6ev7 and try that?. Is there something else that is going on? (sorry for so many questions)
These Drakes ARE a strange breed, compared to some of the other rigs I've messed with.
But I'm willing to learn. This the part of this hobby I like best besides building stuff.

[Non-text portions of this message have been removed]

20078. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 04:38:04 UTC
From: Richard Knoppow
Topic: 20076 Message: 20078

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <drakeradio@yahoogroups.com>
Sent: Monday, April 14, 2014 8:55 PM
Subject: [DrakeRadio] crystal calibrator alignment??

> Is there a simple way to check this out? You know, with a
> freq counter, scope or something?
> The adjusting point is straight forward and as old as this
> thing is Ill be bubba couldnt resist putting the golden
> screwdriver to it. I would rather not monkey around with
> wwv and wrapping wire around a tube if I can do it with
> something else. This is a TR-4CW rit almost as new as the
> one on ebay now. Mine is 38 older.
>
> David, KX7C

Well, you didn't say what model but most receivers have
the calibrator connected right at teh antenna terminal or RF
grid input so it shows up on the antenna terminals. Usually
not strong enough to drive a counter but you can hear it on
another receiver. Use a receiver that can hear WWV and use
that to zerobeat the calibrator. This, of course, assumes
the Drake receiver you are asking about won't hear WWV.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20079. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 04:56:03 UTC
From: Steve VK2SJA
Topic: 20076 Message: 20079

Hi David,

On my TR-4C I was able to drive my frequency counter directly by wrapping
two or three turns of insulated solid core wire around the middle of V5.

73, Steve.

> Is there a simple way to check this out? You know, with a freq counter,
> scope or something?
> The adjusting point is straight forward and as old as this thing is Ill be
> bubba couldnt resist putting the golden screwdriver to it. I would rather
> not monkey around with wwv and wrapping wire around a tube if I can do it
> with something else. This is a TR-4CW rit almost as new as the one on ebay
> now. Mine is 38 older.
>
> David, KX7C
>
>
> [Non-text portions of this message have been removed]
>
>

20080. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 05:01:02 UTC
From: David Nichols
Topic: 20076 Message: 20080

Well OK! HI HI Ill give that a try and see what happens. Sounds a lot easier than getting another piece of equipment on the bench. Thanks Steve

---

From: Steve VK2SJA <vk2sja@...>
To: DrakeRadio@yahoogroups.com
Sent: Monday, April 14, 2014 9:56 PM
Subject: Re: [DrakeRadio] crystal calibrator alignment??

Hi David,

On my TR-4C I was able to drive my frequency counter directly by wrapping two or three turns of insulated solid core wire around the middle of V5.

73, Steve.

> Is there a simple way to check this out? You know, with a freq counter,
> scope or something?
> The adjusting point is straight forward and as old as this thing is Ill be
> bubba couldnt resist putting the golden screwdriver to it. I would rather
> not monkey around with wwv and wrapping wire around a tube if I can do it
> with something else. This is a TR-4CW rit almost as new as the one on ebay
> now. Mine is 38 older.
>
> David, KX7C
>
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20081. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 05:34:55 UTC
From: David Nichols
Topic: 20076 Message: 20081

Thanks again Steve, it came up .1 and all zeros. I wouldnt even breath on that cap, but now I know.
David

From: David Nichols <hamcomm7@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Monday, April 14, 2014 10:01 PM
Subject: Re: [DrakeRadio] crystal calibrator alignment??

Well OK! HI HI Ill give that a try and see what happens. Sounds a lot easier than getting another piece of equipment on the bench. Thanks Steve

---
From: Steve VK2SJA <vk2sja@...>
To: DrakeRadio@yahoogroups.com
Sent: Monday, April 14, 2014 9:56 PM
Subject: Re: [DrakeRadio] crystal calibrator alignment??

Hi David,

On my TR-4C I was able to drive my frequency counter directly by wrapping
two or three turns of insulated solid core wire around the middle of V5.

73, Steve.

> Is there a simple way to check this out? You know, with a freq counter,
> scope or something?
> The adjusting point is straight forward and as old as this thing is Ill be
> bubba couldnt resist putting the golden screwdriver to it. I would rather
> not monkey around with wwv and wrapping wire around a tube if I can do it
> with something else. This is a TR-4CW rit almost as new as the one on ebay
> now. Mine is 38 older.
>
> David, KX7C
>
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20082. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 05:56:29 UTC
From: Steve VK2SJA
Topic: 20076 Message: 20082

No problem. Pleased to be able to contribute something.

By all means "leave well enough alone" but just so you know I found the adjustment pretty easy and smooth. So I wouldn't be too worried about accidentally bumping that alignment cap.

I didn't check it again when stone cold but I imagine it might move around at least a little bit with heat. Which is why the 30 minutes warm up period of course.

73, Steve.

> Thanks again Steve, it came up .1 and all zeros. I wouldnt even breath on
> that cap, but now I know.
> David
>
>
>
>
> _____
> From: David Nichols <hamcomm7@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Monday, April 14, 2014 10:01 PM
> Subject: Re: [DrakeRadio] crystal calibrator alignment??
>
>
>
>
> Well OK! HI HI Ill give that a try and see what happens. Sounds a lot
> easier than getting another piece of equipment on the bench. Thanks Steve
>
> _____
> From: Steve VK2SJA <vk2sja@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, April 14, 2014 9:56 PM
> Subject: Re: [DrakeRadio] crystal calibrator alignment??
>
>
>
> Hi David,
>
> On my TR-4C I was able to drive my frequency counter directly by wrapping
> two or three turns of insulated solid core wire around the middle of V5.
>
> 73, Steve.
>

>> Is there a simple way to check this out? You know, with a freq counter,
>> scope or something?
>> The adjusting point is straight forward and as old as this thing is Ill
>> be
>> bubba couldnt resist putting the golden screwdriver to it. I would
>> rather
>> not monkey around with wwv and wrapping wire around a tube if I can do
>> it
>> with something else. This is a TR-4CW rit almost as new as the one on
>> ebay
>> now. Mine is 38 older.
>>
>> David, KX7C
>>

20083. Quality Control Tags

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 13:23:41 UTC
From: <baysideanh@...>
Topic: 20083 Message: 20083

Seems to me there was something on the forum a couple of weeks ago pertaining to the fact that someone is collecting the quality Control Tags that Drake placed on their products. I believe they were making a data base recording the information as to manufacturing date, s/n as well as product number. Well I looked high an low for them but was unable to locate them. I remember saving them all, but gave up in disgust as I couldn't find them and accepted the fact I must have thrown them in the garbage can. This past weekend I decided to clean out my operating desk as it had been in disarray for some time and low and behold you wouldn't know what I found. In the bottom drawer there was an open box with nothing in it but some spare tubes. under the box I found five (5) quality control tags from my Drake gear that was purchased at VE Sales in Toronto sometime in the 1970's. Does anyone know who is collecting the information from these as I would gladly send them to the party involved.
73 Bruce VE1ANH

[Non-text portions of this message have been removed]

20084. Re: [DrakeRadio] Quality Control Tags

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 13:33:44 UTC
From: Chgypsy@...
Topic: 20083 Message: 20084

Bruce,
The web site is _www.wb4hfn.com_ (http://www.wb4hfn.com) , If you have not been there and clicked on the Drake stuff (he also has Collins and Heathkit and.....) you are doing yourself a disservice. The Tag info to _WB4HFN@WB4HFN_ (mailto:WB4HFN@WB4HFN)

Have fun, Carl WD8NHK

, baysideanh@... writes:

Seems to me there was something on the forum a couple of weeks ago pertaining
to the fact that someone is collecting the quality Control Tags that Drake placed on
their products.

Does anyone know who
is collecting the information from these as I would gladly send them to the party
involved.
Bruce VE1ANH

[Non-text portions of this message have been removed]

20085. R4C for sale...UK

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 13:57:49 UTC
From: Ian Keyser
Topic: 20083 Message: 20085

I've got an R4C in clean condition for sale....Not sure of the value these days so I'm open to offers!!

Ian, G3ROO

Got a TR7 line-up as well, and that is hardly ever usec, so perhaps that should go too!!

[Non-text portions of this message have been removed]

20086. Re: [DrakeRadio] Re: New member and question?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 15:56:35 UTC
From: Garey Barrell
Topic: 19951 Message: 20086

Kevin -

OK. I think your 6CG7 is either gassy or a 'sorta' substitute. It IS the same base, but..... The 6EV7 is available from most any of the tube dealers, about $3. You don't need a
6EV7 now, but if you make an order for the 12AV6, you might want a spare.

<www.esrcvacuumtubes.com/☐>

<www.tubesandmore.com>

and many more for about $3-5 each. You need a 12AV6, available from the same sources for a little less. You might also want to add a 12BA6 or two, as that is the other problem tube.

I still think the problem lies in the 12AV6, and there isn't much point in doing anything else
until we eliminate it as the cause.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kk.n8vkx@... wrote:
> I'm back. I couldn't get my hands on a V-2 (12av6) but I thought I'd try a few other tubes I could get a hold of that is used in the VOX circuit. Now I couldn't get an exact replacement for V-19(6ev7) but I found that a (6cg7) should work and turned the rig on, and after messing with the VOX controls I was able to KEY the radio with a strait key, BUT! after a few seconds the radio would not un-key. I would have to turn the radio of for a few seconds before turning it back on to get it back to receive
> Follow me so far?
> Now, am I barking up the wrong tree? Should I find another 12av6 and try that? Do I need to get a 6ev7 and try that?. Is there something else that is going on? (sorry for so many questions)
> These Drakes ARE a strange breed, compared to some of the other rigs I've messed with.
> But I'm willing to learn. This the part of this hobby I like best besides building stuff.
>
>

20087. R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 17:57:18 UTC
From: <dj_coffman@...>
Topic: 20087 Message: 20087

Well, an R-4C noise blanker finally made it on Ebay this week but is already up to $200.00. Does anyone have an R-4C noise blanker they would be willing to sell?

Regards,

Doug - N9XTF

[Non-text portions of this message have been removed]

20088. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:10:01 UTC
From: Don Cunningham
Topic: 20087 Message: 20088

Doug,
Do you have a lot of trouble with ignition noise or electric fences??
If not, I'm not sure you will find the R4C noise blanker worth the money
it will cost you. They often do go for about that price, and are not
that effective on atmospheric noise, in my experience, only our electric
fences and the old ignitions they were designed for. You might consider
that as well. If I didn't have the fences to deal with, I'd sure sell
mine!!!!
73,
Don, WB5HAK
On 4/15/2014 12:57 PM, dj_coffman@... wrote:
>
>
> Well, an R-4C noise blanker finally made it on Ebay this week but is
> already up to $200.00. Does anyone have an R-4C noise blanker they
> would be willing to sell?
>
>
> Regards,
>
>
> Doug - N9XTF
>
> [Non-text portions of this message have been removed]
>
>

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http://www.avast.com

[Non-text portions of this message have been removed]

20089. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:15:52 UTC
From: Chgypsy@...
Topic: 20087 Message: 20089

Hey Don, Add power line pulses to that list. Carl WD8NHK

In a message dated 4/15/2014 2:10:24 P.M. Eastern Daylight Time,
donc@... writes:

They often do go for about that price, and are not
that effective on atmospheric noise, in my experience, only our electric
fences and the old ignitions they were designed for. If I didn't have
the fences to deal with, I'd sure sell
mine!!!!
73,
Don, WB5HAK

[Non-text portions of this message have been removed]

20090. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:19:08 UTC
From: Doug Coffman
Topic: 20087 Message: 20090

Don,

Yes rural Morgan county Indiana. Electric fences are prevalent as well as a 1950 era power line distribution system.

$200 on top of a $250 receiver is kind of stiff but I figured that would be the outcome. I thought I'd find out if anyone on the group had one before paying EBay prices.

Thanks,

Doug - N9XTF

Sent from my iPhone

> On Apr 15, 2014, at 14:10, Don Cunningham <donc@...> wrote:
>
> Doug,
> Do you have a lot of trouble with ignition noise or electric fences??
> If not, I'm not sure you will find the R4C noise blanker worth the money
> it will cost you. They often do go for about that price, and are not
> that effective on atmospheric noise, in my experience, only our electric
> fences and the old ignitions they were designed for. You might consider
> that as well. If I didn't have the fences to deal with, I'd sure sell
> mine!!!!
> 73,
> Don, WB5HAK
> On 4/15/2014 12:57 PM, dj_coffman@... wrote:
> >
> >
> > Well, an R-4C noise blanker finally made it on Ebay this week but is
> > already up to $200.00. Does anyone have an R-4C noise blanker they
> > would be willing to sell?
> >
> >
> > Regards,
> >
> >
> > Doug - N9XTF
> >
> > [Non-text portions of this message have been removed]
> >
> >
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is active.

> http://www.avast.com
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20091. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:20:16 UTC
From: Don Cunningham
Topic: 20087 Message: 20091

Thanks, Carl, you are right. Some kinds of power line noise do work
with those too. Doesn't help on my "constant frying" when the really
large lines close to me get dirty insulators, but that doesn't last
long, as they lose money and find those FAST and get busy cleaning and
replacing, HI. Gets their attention when it costs in efficiency or
money, it seems. You are right though, the really bad cases I forget
about (lightening arrestors, transformers, etc). Good point!!
73,
Don
On 4/15/2014 1:15 PM, Chgypsy@... wrote:
>
> Hey Don, Add power line pulses to that list. Carl WD8NHK
>
>
> In a message dated 4/15/2014 2:10:24 P.M. Eastern Daylight Time,
> donc@... writes:
>
> They often do go for about that price, and are not
> that effective on atmospheric noise, in my experience, only our electric
> fences and the old ignitions they were designed for. If I didn't have
> the fences to deal with, I'd sure sell
> mine!!!!
> 73,
> Don, WB5HAK
>
> [Non-text portions of this message have been removed]
>
>

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http://www.avast.com

[Non-text portions of this message have been removed]

20092. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:24:28 UTC
From: Doug Coffman
Topic: 20087 Message: 20092

My other R4C BLANKER works quite well on the power line pulses, but as you said, the "frying noise" isn't going to be stopped.

Thanks gentlemen,

N9XTF

Sent from my iPhone

> On Apr 15, 2014, at 14:20, Don Cunningham <donc@...> wrote:
>
> Thanks, Carl, you are right. Some kinds of power line noise do work
> with those too. Doesn't help on my "constant frying" when the really
> large lines close to me get dirty insulators, but that doesn't last
> long, as they lose money and find those FAST and get busy cleaning and
> replacing, HI. Gets their attention when it costs in efficiency or
> money, it seems. You are right though, the really bad cases I forget
> about (lightening arrestors, transformers, etc). Good point!!
> 73,
> Don
> On 4/15/2014 1:15 PM, Chgypsy@... wrote:
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> > Hey Don, Add power line pulses to that list. Carl WD8NHK
> >
> >
> > In a message dated 4/15/2014 2:10:24 P.M. Eastern Daylight Time,
> > donc@... writes:
> >
> > They often do go for about that price, and are not
> > that effective on atmospheric noise, in my experience, only our electric
> > fences and the old ignitions they were designed for. If I didn't have
> > the fences to deal with, I'd sure sell
> > mine!!!!
> > 73,
> > Don, WB5HAK
> >
> > [Non-text portions of this message have been removed]
> >
> >
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is active.
> http://www.avast.com
>
> [Non-text portions of this message have been removed]

>
>

[Non-text portions of this message have been removed]

20093. Re: [DrakeRadio] R4C for sale...UK

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:35:42 UTC
From: Dieter Horst
Topic: 20083 Message: 20093

Hello Ian,
I am more towords the 7-line stuff.
Could you please tell me what you may want to sell?
TNX and 73
Dieter DL5RDO

Am 15.04.2014 15:57, schrieb Ian Keyser:
>
> I've got an R4C in clean condition for sale....Not sure of the value these
> days so I'm open to offers!!
>
> Ian, G3ROO
>
> Got a TR7 line-up as well, and that is hardly ever usec, so perhaps that
> should go too!!
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20094. Re: [DrakeRadio] R4C for sale...UK

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:38:45 UTC
From: Dieter Horst
Topic: 20083 Message: 20094

Sorry gentlemen... never remember that 'reply' button does not work here.

Am 15.04.2014 20:35, schrieb Dieter Horst:
> Hello Ian,
> I am more towords the 7-line stuff.
> Could you please tell me what you may want to sell?
> TNX and 73
> Dieter DL5RDO

20095. Re: [DrakeRadio] R-4C Noise Blanker WTB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:41:03 UTC
From: Chgypsy@...
Topic: 20087 Message: 20095

Don,
To much waiting.....7 lines about 500 ft away, cracked insulators arc,
30.06 works wonders. They will fix them. Carl

donc@... writes:

Doesn't help on my "constant frying" when the really
large lines close to me get dirty insulators, but that doesn't last
long, as they lose money and find those FAST and get busy cleaning and
replacing, HI. Gets their attention

[Non-text portions of this message have been removed]

20096. L1, L5, L2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 18:56:01 UTC
From: David Nichols
Topic: 20096 Message: 20096

HELLO, IM GETTING READY TO MAKE SOME ADJUSTMENTS AND ALREADY HAVE A QUESTION OR TWO. FIRST, THE ALIGNMENT INSTRUCTIONS SAY THE SCREEN AND PLATE POWER LEADS "SHOULD" BE REMOVED.. DOES THIS MEAN YOU JUST HAVE TO BE CAREFUL AND CAN LEAVE THEM ALONE? SECOND.... ARE L1, L2, AND L5 ADJUSTED TOP AND BOTTOM? I SCANNED THE INSTRUCTIONS AND DIDNT SEE A CALL TO ADJUST THE BOTTOM OF EITHER. IM A LITTLE CONCERNED ABOUT BOTTOM ADJUSTMENTS BECAUSE I CAN SEE THAT ONLY HALF OF THE SLOT REMAINS ON L1. IT DOESNT APPEAR TO BE CRACKED BUT I FEAR IT WILL BE NEXT TO IMPOSSIBLE TO MAKE AN ADJUSTMENT WITH IT. MY RIG IS A TR-4CW. DAVID, KX7C

[Non-text portions of this message have been removed]

20097. P75 Speech Processor for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 19:06:40 UTC
From: Joe W2KJ
Topic: 20097 Message: 20097

Howdy Fellow Drakesters:

I would like to compare notes with a user(s) of the Drake SP75 Speech Processor with the TR7.

Need to get mike, output settings, etc.

Many thanks.

73, Joe W2KJ
R7, C-Line, TR4C

20098. Re: [DrakeRadio] L1, L5, L2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 20:41:14 UTC
From: Garey Barrell
Topic: 20096 Message: 20098

David -

You can get away with just removing the Screen lead from the side of the shield wall under the
chassis. This disables the PA so you don't have to worry about keeping it resonated while
you're working on the low level stuff. It's also handy for the 'easy' way to neutralized the
PA. Be very careful removing the lead from the ceramic feedthrough that the Screen lead solders
to. If stressed mechanically or overheated, they will break or be damaged.. Also important to
remember that there is 700 VDC floating around inside the shield wall of the PA where it comes
through the feedthrough. Just as important, don't forget that there is 260 VDC floating all
over that chassis, top and bottom. Easy to get into bad habits if you're used to working on SS
stuff!!!! A simple mistake CAN be FATAL!

L1, L2, and L5 are adjusted from the top only.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> HELLO, IM GETTING READY TO MAKE SOME ADJUSTMENTS AND ALREADY HAVE A QUESTION OR TWO.
FIRST, THE ALIGNMENT INSTRUCTIONS SAY THE SCREEN AND PLATE POWER LEADS "SHOULD" BE
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ARE L1, L2, AND L5 ADJUSTED TOP AND BOTTOM? I SCANNED THE INSTRUCTIONS AND DIDNT SEE A CALL
TO ADJUST THE BOTTOM OF EITHER. IM A LITTLE CONCERNED ABOUT BOTTOM ADJUSTMENTS BECAUSE I
CAN SEE THAT ONLY HALF OF THE SLOT REMAINS ON L1. IT DOESNT APPEAR TO BE CRACKED BUT I FEAR
IT WILL BE NEXT TO IMPOSSIBLE TO MAKE AN ADJUSTMENT WITH IT. MY RIG IS A TR-4CW. DAVID,
KX7C
>
>

20099. Re: [DrakeRadio] P75 Speech Processor for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 20:53:17 UTC
From: Jim Shorney
Topic: 20097 Message: 20099

Joe,

Did Garey forward the write-up that I did for him? I set mine up exactly per the manual instructions, and it works great! Very good reports from friends who know my voice.

73

-Jim
NU0C

On Tue, 15 Apr 2014 15:06:40 -0400, Joe W2KJ wrote:

>Howdy Fellow Drakesters:
>
>I would like to compare notes with a user(s) of the Drake SP75 Speech Processor with the TR7.
>
>Need to get mike, output settings, etc.
>
>Many thanks.
>
> 73, Joe W2KJ
> R7, C-Line, TR4C
>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

20100. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 21:17:53 UTC
From: Jim Shorney
Topic: 20076 Message: 20100

I suppose it depends on the accuracy that you want. With the WWV method you can easily get the calibrator within a couple of Hertz or less at 5 or 10 MHz. Divide that my the harmonic number that you are listening to and that will tell you where the 100 KHz fundamental should be. I don't personally know anyone who has a counter with that kind of resolution. Since the error multiplies with the harmonic, it's best to set it with the highest WWV that you can get a good signal on.

For for example, at 10 MHz (100th harmonic of 100 KHz) an error of 1 KHz (10.001 MHz) in the calibrator signal would work out to a fundamental frequency of 100.01 KHz. That's 10 Hertz. An error of 1 Hz @ 10 MHz would be 10 milliHertz at 100 KHz! (If I did my math right).

Of course, that's probably smaller than the drift spec of the crystal, but you still want the calibrator to be as accurate as possibe.

73

-Jim
NU0C

On Mon, 14 Apr 2014 22:34:55 -0700 (PDT), David Nichols wrote:

>Thanks again Steve, it came up .1 and all zeros. I wouldnt even breath on that cap, but now I know.
>David
>
>
>
>
>_____
> From: David Nichols <hamcomm7@...>
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Sent: Monday, April 14, 2014 10:01 PM
>Subject: Re: [DrakeRadio] crystal calibrator alignment??
>
>
>
>Â
>Well OK! HI HI Ill give that a try and see what happens. Sounds a lot easier than getting another piece of equipment on the bench. Thanks Steve
>
>_____
>From: Steve VK2SJA <vk2sja@...>
>To: DrakeRadio@yahoogroups.com
>Sent: Monday, April 14, 2014 9:56 PM

>Subject: Re: [DrakeRadio] crystal calibrator alignment??
>
>
>Â
>Hi David,
>
>On my TR-4C I was able to drive my frequency counter directly by wrapping
>two or three turns of insulated solid core wire around the middle of V5.
>
>73, Steve.
>
>> Is there a simple way to check this out? You know, with a freq counter,
>> scope or something?
>> The adjusting point is straight forward and as old as this thing is Ill be
>> bubba couldnt resist putting the golden screwdriver to it. I would rather
>> not monkey around with wwv and wrapping wire around a tube if I can do it
>> with something else. This is a TR-4CW rit almost as new as the one on ebay
>> now. Mine is 38 older.
>>
>> David, KX7C
>>
>>
>> [Non-text portions of this message have been removed]
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>[Non-text portions of this message have been removed]
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>[Non-text portions of this message have been removed]
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>

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"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20101. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 21:23:02 UTC
From: Garey Barrell
Topic: 20076 Message: 20101

Jim -

I started to reply to that one, but then I decided 'why bother'..... Since he didn't 'breath'
on that cap, he doesn't know that if he had, it wouldn't have changed the counter readout a bit!!.

Guess I'm just getting (more) crotchety in my old age... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> I suppose it depends on the accuracy that you want. With the WWV method you can
> easily get the calibrator within a couple of Hertz or less at 5 or 10 MHz.
> Divide that my the harmonic number that you are listening to and that will tell
> you where the 100 KHz fundamental should be. I don't personally know anyone who
> has a counter with that kind of resolution. Since the error multiplies with the
> harmonic, it's best to set it with the highest WWV that you can get a good
> signal on.
>
> For for example, at 10 MHz (100th harmonic of 100 KHz) an error of 1 KHz
> (10.001 MHz) in the calibrator signal would work out to a fundamental frequency
> of 100.01 KHz. That's 10 Hertz. An error of 1 Hz @ 10 MHz would be 10
> milliHertz at 100 KHz! (If I did my math right).
>
> Of course, that's probably smaller than the drift spec of the crystal, but you
> still want the calibrator to be as accurate as possibe.
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> 73
>
> -Jim
> NU0C
>
> On Mon, 14 Apr 2014 22:34:55 -0700 (PDT), David Nichols wrote:
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>> Thanks again Steve, it came up .1 and all zeros. I wouldnt even breath on that cap, but
now I know.
>> David
>>
>>
>>

>>
>> _____
>> From: David Nichols <hamcomm7@...>
>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>> Sent: Monday, April 14, 2014 10:01 PM
>> Subject: Re: [DrakeRadio] crystal calibrator alignment??
>>
>>
>>
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>> Well OK! HI HI Ill give that a try and see what happens. Sounds a lot easier than
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>> To: DrakeRadio@yahoogroups.com
>> Sent: Monday, April 14, 2014 9:56 PM
>> Subject: Re: [DrakeRadio] crystal calibrator alignment??
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>> Hi David,
>>
>> On my TR-4C I was able to drive my frequency counter directly by wrapping
>> two or three turns of insulated solid core wire around the middle of V5.
>>
>> 73, Steve.
>>
>>> Is there a simple way to check this out? You know, with a freq counter,
>>> scope or something?
>>> The adjusting point is straight forward and as old as this thing is Ill be
>>> bubba couldnt resist putting the golden screwdriver to it. I would rather
>>> not monkey around with wwv and wrapping wire around a tube if I can do it
>>> with something else. This is a TR-4CW rit almost as new as the one on ebay
>>> now. Mine is 38 older.
>>>
>>> David, KX7C
>>>
>>>

20102. Re: [DrakeRadio] L1, L5, L2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 21:55:13 UTC
From: David Nichols
Topic: 20096 Message: 20102

OK, NOW THAT MAKES SENSE TO ME ON THE REMOVAL OF THE WIRES GAREY.
GREAT NEWS ON ADJUSTING L1, L2, L5! I SURE DIDNT WANT TO HAVE TO TRY DOING ANYTHING WITH L1.
THANKS FOR LETTING ME KNOW.
DAVID, KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 15, 2014 1:41 PM
Subject: Re: [DrakeRadio] L1, L5, L2

David -

You can get away with just removing the Screen lead from the side of the shield wall under the
chassis. This disables the PA so you don't have to worry about keeping it resonated while you're working on the low level stuff. It's also handy for the 'easy' way to neutralized the
PA. Be very careful removing the lead from the ceramic feedthrough that the Screen lead solders
to. If stressed mechanically or overheated, they will break or be damaged.. Also important to
remember that there is 700 VDC floating around inside the shield wall of the PA where it comes
through the feedthrough. Just as important, don't forget that there is 260 VDC floating all over that chassis, top and bottom. Easy to get into bad habits if you're used to working on SS
stuff!!!! A simple mistake CAN be FATAL!

L1, L2, and L5 are adjusted from the top only.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> HELLO, IM GETTING READY TO MAKE SOME ADJUSTMENTS AND ALREADY HAVE A QUESTION OR TWO. FIRST, THE ALIGNMENT INSTRUCTIONS SAY THE SCREEN AND PLATE POWER LEADS "SHOULD" BE REMOVED.. DOES THIS MEAN YOU JUST HAVE TO BE CAREFUL AND CAN LEAVE THEM ALONE? SECOND.... ARE L1, L2, AND L5 ADJUSTED TOP AND BOTTOM? I SCANNED THE INSTRUCTIONS AND DIDNT SEE A CALL TO ADJUST THE BOTTOM OF EITHER. IM A LITTLE CONCERNED ABOUT BOTTOM ADJUSTMENTS BECAUSE I CAN SEE THAT ONLY HALF OF THE SLOT REMAINS ON L1. IT DOESNT APPEAR TO BE CRACKED BUT I FEAR IT WILL BE NEXT TO IMPOSSIBLE TO MAKE AN ADJUSTMENT WITH IT. MY RIG IS A TR-4CW. DAVID,

KX7C
>
>

[Non-text portions of this message have been removed]

20103. Re: [DrakeRadio] TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 22:04:48 UTC
From: n1ohn@yahoo.com
Topic: 20052 Message: 20103

Any help with this?

Thanks all!!!!

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20104. Re: [DrakeRadio] crystal calibrator alignment??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 22:19:04 UTC
From: Jim Shorney
Topic: 20076 Message: 20104

Some days it seems like we take turns doing that.

On Tue, 15 Apr 2014 17:23:02 -0400, Garey Barrell wrote:

>Guess I'm just getting (more) crotchety in my old age... :-)

73

-Jim

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20105. Re: [DrakeRadio] TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-15 23:13:19 UTC
From: Garey Barrell
Topic: 20052 Message: 20105

Why are you replacing them???

Garey - K4OAH
Glen Allen, VA

On Apr 15, 2014, at 6:04 PM, "n1ohn@..." <n1ohn@...> wrote:

> Any help with this?
>
> Thanks all!!!!
>

20106. Re: [DrakeRadio] P75 Speech Processor for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 00:38:12 UTC
From: Chgypsy@...
Topic: 20097 Message: 20106

jotrom@... writes:

I would like to compare notes with a user(s) of the Drake SP75 Speech Processor with the TR7.

Need to get mike, output settings, etc. Joe W2KJ

After initial setup, run about >6 db, with my particular location. Mic is a Kenwood MC 50.
Carl WD8NHK

[Non-text portions of this message have been removed]

20107. Re: [DrakeRadio] TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 00:38:33 UTC
From: n1ohn@yahoo.com
Topic: 20052 Message: 20107

Fried ... looks like they went with the coil.

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20108. Re: [DrakeRadio] P75 Speech Processor for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 01:29:38 UTC
From: Joe W2KJ
Topic: 20097 Message: 20108

Howdy Jim:

Yes, Garey did forward the write-up...many thanks.

Here's my problem....without any connection to the SP75 I can adjust the green ALC LED on the TR7 to just illuminate at 9 o'clock on the TR7 mic gain.

When I connect up the SP75 and adjusting R5 on the SP75 I can't get the SP75 LED to illuminate...I need to turn the TR7 mic gain up to at least 11 or 12 o'clock for the SP75 LED to turn on.

There is a big difference between the mic gain setting on the TR7 when NOT connected to the SP75 and when it IS connected to the SP75.

I'm having a hard time finding a sweet spot on the combo without distortion.

BTW: My mike is a Shure 444D and I get excellent audio reports when used with the TR7 or T4XC.

One would think that the mic gain setting on the TR7 wouldn't have to be cranked up higher when connected to the SP75......using the normal unconnected mic gain level on the TR7 and just adjusting R5 on the SP75 would seem reasonable....but that's not the case.

Any ideas/suggestions are most welcomed.

73, Joe W2KJ

On Apr 15, 2014, at 4:53 PM, Jim Shorney wrote:

>
> Joe,
>
> Did Garey forward the write-up that I did for him? I set mine up exactly per
> the manual instructions, and it works great! Very good reports from friends who
> know my voice.
>
> 73
>
> -Jim
> NU0C
>
> On Tue, 15 Apr 2014 15:06:40 -0400, Joe W2KJ wrote:
>
> >Howdy Fellow Drakesters:
> >
> >I would like to compare notes with a user(s) of the Drake SP75 Speech Processor with the TR7.
> >

> >Need to get mike, output settings, etc.
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> >Many thanks.
> >
> > 73, Joe W2KJ
> > R7, C-Line, TR4C
> >
> >
>
> --
> The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"
>
>

20109. Re: [DrakeRadio] TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 01:54:08 UTC
From: Garey Barrell
Topic: 20052 Message: 20109

OK. I've never had to replace one..... I tend to think the 'N470' was just what they found,
since I don't see any need for temperature compensation here. Main factors are going to be the
100 or 200 pF @ 2000V. Mouser or Digi-Key probably has something.

There is a list member with a stash of parts, and it's possible he would have some. Unlikely,
but possible.

<ai4ji at yahoo dot com>

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Fried ... looks like they went with the coil.
>
> Sent from Yahoo Mail on Android
>
>
>
>
>

20110. Re: [DrakeRadio] P75 Speech Processor for the TR7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 03:07:08 UTC
From: Jim Shorney
Topic: 20097 Message: 20110

On Tue, 15 Apr 2014 21:29:38 -0400, Joe W2KJ wrote:

>When I connect up the SP75 and adjusting R5 on the SP75 I can't get the SP75 LED to illuminate...I need to turn the TR7 mic gain up to at least 11 or 12 o'clock for the SP75 LED to turn on.

You're getting your LEDs confused. R5 (MIC GAIN) is used with the noise gate (AUDIO) LED on the SP-75 ONLY. The setting of the TR-7 front panel mic gain control will have no effect on the AUDIO LED. It can't. Conversely, R69 (OUTPUT LEVEL) is used with the ALC LED on the radio to proplerly set the output level. R5 is used ONLY to set the input level to the processor using the AUDIO LED on the front panel of the SP-75. This is critical.

In other words, R5 "tunes the mic to the processor". Forget about the radio for the moment. You need to set the input level to the processor with R5 FIRST. The power button and the MIC button must both be depressed. Once this is set so that the AUDIO LED ON THE SP-75 functions properly with speech as described in the manual, LEAVE R5 ALONE.

Once R5 is properly set, use R69 to adjust the output level of the processor to the radio. This is where you use the ALC LED and match your level to that of the mic alone.

The adjustments MUST be done in that order. Otherwise it will not work right.

With the power button OFF and the MIC button depressed the mic should operate as if it were connected to the radio alone.

One possible area of concern is the mic wiring. Most TR-7s have a 470K resistor between pins 1 and 4 of the mic jack, with pin 4 intended for a high level mic input. The SP-75 has 1 and 4 connected together on the input jack, but only one of these is connected on the output connector. In mine it is pin 1. There will be a level difference from the mic by itself if the SP-75 output connector is wired to a different pin than your mic. This is not a deal-breaker, but you may want to check your mic and make sure the SP-75 output connector is wired the same. The 444D is a high level mic and would typically be used on the TR-7 in high impedance mode connected to pin 4.

If you can't get it to work by following the proper adjustment steps then there is a problem - dirty switches, mic wiring, whatever.

73

-Jim
NU0C

--
There are 10 types of people in this world -- those who understand binary

and those who don't.

20111. RadioJim Custom Shop SP-75 photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 03:41:18 UTC
From: Jim Shorney
Topic: 20111 Message: 20111

Posted to the group photo section, an example of the results of my distaste for having to make adjustments by fishing through holes with a screwdriver.

https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/748279149

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20112. S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 05:41:10 UTC
From: <fasan5@...>
Topic: 20112 Message: 20112

I am looking for an S-meter for my Drake 2B. Can anyone help? Please answer by direct mail to oz8cth@...

Peter OZ8CTH

[Non-text portions of this message have been removed]

20113. use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 12:26:54 UTC
From: <rochep@...>
Topic: 20113 Message: 20113

I just got a GORGEOUS T4XB from a local ham here. The copper is FANTASTIC. It works well on all bands (was sold in "unknown" condition). What a find. It is S/N 13,XXX so a very early one.

What are the real differences between the 10 year "newer" T4XC and the older T4XB? I did not have to anything but re-adjust bias on AC4 and then use the T4XB; are there any parts I should replace as a precaution to using this as my primary Drake RX? Does one have better CW characteristics than the other (I don't operate phone). I like having sidetone control on the side (instead of back).

Thanks for any ideas, don't wanna blow anything up.

paul

[Non-text portions of this message have been removed]

20114. Re: [DrakeRadio] TX4B 200pf cap with tempco N470?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 12:34:50 UTC
From: n1ohn@yahoo.com
Topic: 20052 Message: 20114

Thanks Garey!

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20115. Re: [DrakeRadio] S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 14:59:08 UTC
From: Garey Barrell
Topic: 20112 Message: 20115

Peter -

The meter is the same in all the 2-B and R-4(any) receivers. Even the T-4X(any) meters are the
same movement, just a different scale, which can be swapped with an S-Meter scale.

Gives a few more options to find one.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

fasan5@... wrote:
> I am looking for an S-meter for my Drake 2B. Can anyone help? Please answer by direct mail to oz8cth@...
>
>
> Peter OZ8CTH
>
>

20116. Re: [DrakeRadio] S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 15:04:12 UTC
From: David Stinson
Topic: 20112 Message: 20116

How about the TR-7 S-meter?
I have a spare but not the same scale.

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
Subject: Re: [DrakeRadio] S-meter for Drake 2B

> Peter -
>
> The meter is the same in all the 2-B and R-4(any) receivers.
> Even the T-4X(any) meters are the
> same movement, just a different scale, which can be swapped
> with an S-Meter scale.

20117. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 15:19:15 UTC
From: Garey Barrell
Topic: 20113 Message: 20117

Paul -

Yes, that's one of the first T-4XBs... Nice find.

The B and C transmitters are essentially identical. The C has a solid state CAR OSC and provisions for phase locking to the R-4C to eliminate the 'C61 Transceive Align' adjustment and
drift/color coded crystal stuff. The C does offer separate DELAY pots for CW and SSB, which is
nice if you do both. Other than that, fully plug and play. The CAR OSC, RTTY and PTO LAMP jacks
are not used with any but the R-4C.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>
> Thanks for any ideas, don't wanna blow anything up.
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> paul
>
>

20118. Re: [DrakeRadio] S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 15:25:19 UTC
From: Garey Barrell
Topic: 20112 Message: 20118

David -

No, that's a different meter.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Stinson wrote:
> How about the TR-7 S-meter?
> I have a spare but not the same scale.
>
> ----- Original Message -----
> From: "Garey Barrell" <k4oah@...>
> Subject: Re: [DrakeRadio] S-meter for Drake 2B
>
>
>> Peter -
>>
>> The meter is the same in all the 2-B and R-4(any) receivers.
>> Even the T-4X(any) meters are the
>> same movement, just a different scale, which can be swapped
>> with an S-Meter scale.
>

20119. Re: [DrakeRadio] S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 17:56:31 UTC
From: William Houghton
Topic: 20112 Message: 20119

Garey,

Are the mounting methods the same for the 2B meter vs the T4X(any) meter, or would Peter need to remove the movement from the T4X housing and move it to a 2B meter housing?

73,

Bill, WA6NEQ

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 16, 2014 7:59 AM
Subject: Re: [DrakeRadio] S-meter for Drake 2B

Peter -

The meter is the same in all the 2-B and R-4(any) receivers. Even the T-4X(any) meters are the
same movement, just a different scale, which can be swapped with an S-Meter scale.

Gives a few more options to find one.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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fasan5@... wrote:
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>
>
> Peter OZ8CTH
>
>

[Non-text portions of this message have been removed]

20120. Re: [DrakeRadio] S-meter for Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 18:15:53 UTC
From: Garey Barrell
Topic: 20112 Message: 20120

Bill -

The meter is identical. Only the scale has to be removed from the S-Meter and installed in the
T-4X(any) meter. There is some risk of damaging the meter case, as it IS plastic, but it can be
done with care.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

William Houghton wrote:
> Garey,
>
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>
> 73,
>
> Bill, WA6NEQ
>
>
> _____
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, April 16, 2014 7:59 AM
> Subject: Re: [DrakeRadio] S-meter for Drake 2B
>
>
>
>
> Peter -
>
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> same movement, just a different scale, which can be swapped with an S-Meter scale.
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> 73, Garey - K4OAH
> Glen Allen, VA
>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
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> fasan5@... wrote:
>> I am looking for an S-meter for my Drake 2B. Can anyone help? Please answer by direct mail to oz8cth@...
>>
>>
>> Peter OZ8CTH
>>
>>

20121. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 23:17:27 UTC
From: <rochep@...>
Topic: 20113 Message: 20121

Thanks Garey,

One thing I notice: on the T4XB I hear the oscillator running between my characters in CW (I can hear the sidetone as the LOUD signal, but also the constant oscillator as long as the relay is in the Transmit Position). On my T4XC I do not really notice the oscillator running even between CW characters/words. Is this normal, and why don't I hear the oscillator on the T4XC. TRANSCEIVE switch set to SEPARATE.

paul

[Non-text portions of this message have been removed]

20122. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 23:38:34 UTC
From: Richard Knoppow
Topic: 20113 Message: 20122

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, April 16, 2014 4:17 PM
Subject: Re: [DrakeRadio] use my T4XC or T4XB?

> Thanks Garey,
>
> One thing I notice: on the T4XB I hear the oscillator
> running between my characters in CW (I can hear the
> sidetone as the LOUD signal, but also the constant
> oscillator as long as the relay is in the Transmit
> Position). On my T4XC I do not really notice the
> oscillator running even between CW characters/words. Is
> this normal, and why don't I hear the oscillator on the
> T4XC. TRANSCEIVE switch set to SEPARATE.
>
> paul
>
Is this with a R4B? Is this the side tone or the
transmitter coming through the receiver. If the latter you
can tune it. If the function switch is not on mute you will
hear the receiver. There is a side tone mod on Garrey's
disc, I am not sure what it is supposed to do but perhaps
cure back wave from the sidetone.
I wish there was a separate adjustment for the side
tone volume since on my rig its too loud when set for the
correct anti-vox level. Not a big deal but would be a
convenience.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20123. Help with TR-4C T2 transformer coil

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-16 23:57:22 UTC
From: Joao Lopes
Topic: 20123 Message: 20123

Dear all

I have a TR-4C to fix with "T2" 9MHz inj coupler for 15m damaged, I dont know what cause it because I dont know the radio history. Is broken, cracked...

I tried to reconstruct a new coil, but unfortunately I dont have the same tube to wrap the coil and I used a fenolite, but its thickness is bigger almost 2mm more and is for a core of 6mm and not 5mm as original or +- same in inch.

I did and I could get the best Q possible for the coil and then, tune the coil for maximum signal in 15m with the ferrite coil tunning in the middle of the coil.

The problem is that i got more less 20dB below if compared with same signal in other band like 40m (using a external RF generator applied to antenna input).

The practical result is that in 15m I can listen other stations "with a 20db" attenuator on.

Anybody maybe has a T2 injection coupler? Or any other tip to help me?

The next stage will be costruct by hand a new paper tube trying to reach same thickness of original e pray after. The wire I used has the same diameter of original one.

Lots of fun in front.

73s

Lopes - PY2SM

20124. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 00:18:20 UTC
From: Steve Wedge
Topic: 20113 Message: 20124

Aesthetically, if you have a copper chassis receiver, use the B. The C has the advantage of the CAR OSC and PTO LAMP synchronising, but that is lost with a non-C receiver.

Better yet, save the C for a suitable R-4C and have that set of Twins elsewhere on the table! Otherwise, not much difference in the transmitters.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@...
Sent: Wednesday, April 16, 2014 8:26 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] use my T4XC or T4XB?

I just got a GORGEOUS T4XB from a local ham here. The copper is FANTASTIC. It works well on all bands (was sold in "unknown" condition). What a find. It is S/N 13,XXX so a very early one.

What are the real differences between the 10 year "newer" T4XC and the older T4XB? I did not have to anything but re-adjust bias on AC4 and then use the T4XB; are there any parts I should replace as a precaution to using this as my primary Drake RX? Does one have better CW characteristics than the other (I don't operate phone). I like having sidetone control on the side (instead of back).

Thanks for any ideas, don't wanna blow anything up.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20125. Net tonite

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 01:15:11 UTC
From: <garygarlic@...>
Topic: 20125 Message: 20125

I'm hanging in on the usual net freq to keep it occupied; talked to KJ4VTH for a bit....

[Non-text portions of this message have been removed]

20126. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 01:54:11 UTC
From: Garey Barrell
Topic: 20113 Message: 20126

Try bridging a cap across C129. The electrolytic can cap.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Thanks Garey,
>
> One thing I notice: on the T4XB I hear the oscillator running between my characters in CW (I can hear the sidetone as the LOUD signal, but also the constant oscillator as long as the relay is in the Transmit Position). On my T4XC I do not really notice the oscillator running even between CW characters/words. Is this normal, and why don't I hear the oscillator on the T4XC. TRANSCEIVE switch set to SEPARATE.
>
> paul
>
>

20127. Re: [DrakeRadio] use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 01:56:07 UTC
From: Garey Barrell
Topic: 20113 Message: 20127

C129 is the terminal with the one Wht/Red wire on it.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Thanks Garey,
>
> One thing I notice: on the T4XB I hear the oscillator running between my characters in CW (I can hear the sidetone as the LOUD signal, but also the constant oscillator as long as the relay is in the Transmit Position). On my T4XC I do not really notice the oscillator running even between CW characters/words. Is this normal, and why don't I hear the oscillator on the T4XC. TRANSCEIVE switch set to SEPARATE.
>
> paul
>
>

20128. Re: [DrakeRadio] Net tonite

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 01:59:37 UTC
From: Gary Woods
Topic: 20125 Message: 20128

On Wed, 16 Apr 2014 21:51:50 -0400, you wrote:

>What Drake net is on tonight???

Wrong group and crossed neurons:
Kenwood TS-590 net 7235LSB/ 21:30 Eastern.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

20129. Re: Help with TR-4C T2 transformer coil

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 08:04:47 UTC
From: Terry Thompson
Topic: 20123 Message: 20129

Lopes,

I had a similar problem with T12 in my TR4 that I purchased on eBay a few years ago. After spending many hours trying to align the rig, I was unable to get T12 to peak properly. TheT12 bottom tuning shaft had been bent, the adjustment slot ruined as well as the coil from improper adjustment with the wrong tool by the previous owner.

Searching the internet, I found a dealer who sells parts from parted-out rigs and saw that although he didn't show any TR4 parts, he had parts for a TR3, including a T12 for $14. I examined the schematics and photos of both rigs in the TR4 manual and online (and on Garey's CD) and decided to order the T12 from him. I installed it, finished my alignment procedures and it works great now. T12 appears to be identical between the TR3 and TR4-just looking at the schematics and photos it looks like T2 is likely the same as well.

The dealer's website is:
http://members.tripod.com/tubes_tubes_tubes/id147.html . I have recently purchased a hallicrafters tuning knob for my SX-100 from him as well and he is very pleasant to deal with and ships items quickly and properly packed. He lists a TR3 T2 transformer for $14 plus shipping. I can't promise that it would be identical, but the fixed capacitor values inside the transformer show as being the same values and the transformer photos appear identical, so I suspect it is worth a try.

Hope this helps and good luck with your repair.

73,

Terry Thompson K7MPP

[Non-text portions of this message have been removed]

20130. Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 12:30:35 UTC
From: <rochep@...>
Topic: 20113 Message: 20130

Richard,

This is with an R4A and indeed it is on mute; it is NOT my transmitted signal. The sidetone is on TOP of that. And sidetone volume are easily adjusted on all TX using ANTI-VOX; it is a pot on the back panel. I just wonder if this is NORMAL or not.

p

[Non-text portions of this message have been removed]

20131. Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 12:34:25 UTC
From: <rochep@...>
Topic: 20113 Message: 20131

Hi Garey,

I'm not soldering anything anytime soon, I separated my shoulder and fractured my collarbone playing lacrosse last night! But are you recommending jumping across electroltyi C129? Why not just replace it?

What exactly am I hearing in between dots and dashes and if the oscillator is always running why don't I ALWAYS hear the oscillator on my T4XC? This is NOT my spotted signal and NOT my 800 Hz sidetone.

paul

[Non-text portions of this message have been removed]

20132. Re: [DrakeRadio] Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 13:20:12 UTC
From: Garey Barrell
Topic: 20113 Message: 20132

Paul -

WELL!! I don't know how old you are, but "I'M" old enough to know better..... :-) I bet your wife is pleased with you too.....

sorry, just couldn't resist..... Hope you're not in too much pain. I HAVE broken bones 'before' I grew up.... :-) My BEST one was when I was about 15. I was sitting at my operating
desk, and swiveled with my back to the desk looking at something else. I heard a 'new' country
calling CQ, and swiveled around quickly and reached for the key. Only problem was the desk was
a few inches higher than I remembered and I caught my little finger on the edge of the desk,
breaking the bone on the side of my hand. It WAS a new country!! Cast from last two fingertips
up to the middle of my bicep..... But my thumb and first two fingers could still operate
the bug. !

Anyway, back to Drake.

A known failure in Drake series TRANSMITTERS is a dried out C129. The topology is that the SIDETONE audio oscillator V9A is keyed 'on' all the time the relay is energized. This tone is
used to provide the SIDETONE signal and to hold the VOX in transmit. The signal is 'keyed' by
biasing diode D8 either on or off with the keying voltage. The usual failure is that C129 dries
out and the ESR increases considerably, the AF signal is coupled 'around' D8 via the Plate supply to V9B. The degree of deterioration of C129 determines the 'strength' of the backwave.

Obviously, the T-4XC capacitor (C107) is in better condition, so doesn't exhibit the problem. I
realize you say it's not the SIDETONE you are hearing, but this is the most likely fault. This
is why I suggested to bridge the cap to see if that resolves the problem. If it does not, then
we'll have to have some more information!

Feel better.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Hi Garey,
>
> I'm not soldering anything anytime soon, I separated my shoulder and fractured my collarbone playing lacrosse last night! But are you recommending jumping across electroltyi C129? Why not just replace it?
>
> What exactly am I hearing in between dots and dashes and if the oscillator is always running why don't I ALWAYS hear the oscillator on my T4XC? This is NOT my spotted signal and NOT my 800 Hz sidetone.
>
> paul
>
>

20133. Re: [DrakeRadio] Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 16:21:26 UTC
From: Richard Knoppow
Topic: 20113 Message: 20133

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 5:30 AM
Subject: [DrakeRadio] Re: use my T4XC or T4XB?

> Richard,
>
> This is with an R4A and indeed it is on mute; it is NOT my
> transmitted signal. The sidetone is on TOP of that. And
> sidetone volume are easily adjusted on all TX using
> ANTI-VOX; it is a pot on the back panel. I just wonder if
> this is NORMAL or not.
>
> p
I am not as familiar with the A as with the B since I
have a B and have had to work on it. If I understand
correctly the tone is there all the time. If you disconnect
the anti-vox cable does it continue? If its not the side
tone and not feedthrough of the transmitted signal I am
unsure what it is. I wonder if its there all the time even
when the tranmitter is turned off. I think this is really a
question for Garrey but I am trying to isolate it.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20134. Re: [DrakeRadio] Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 17:21:56 UTC
From: <rochep@...>
Topic: 20113 Message: 20134

Problem solved. As usual Garey was correct, replace C139 and problem went away. WHile I was in there I replaced the other 10 uF electrolytic too (Replaced 60 uF C139 with a 47 uF, I bet that would be fine). Now I seem to have lost the "volume control" for my sidetone gain!! Maybe something wiggled loose, but too much pain (after my brief solder stint) to worry about it.

Oh yeah, I am 51 years old and I SHOULD know better, but I have been playing lacrosse most of my life, so ... ... Shoulder not broken, just dislocated shoulder and dislocated acromioclavicular joint (thats a mouthful). But it still hurts.

paul

[Non-text portions of this message have been removed]

20135. Re: [DrakeRadio] Re: use my T4XC or T4XB?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-17 23:21:47 UTC
From: <rochep@...>
Topic: 20113 Message: 20135

Garey Barrell
Today at 6:20 AM Expand Messages

View Source
Paul -

WELL!! I don't know how old you are, but "I'M" old enough to know better..... :-) I bet your wife is pleased with you too.....

Yes, my wife is PISSED. But not the first time, i tore my rotator cuff a few years ago doing the same thing.

p

[Non-text portions of this message have been removed]

20136. new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 00:25:26 UTC
From: Paul Kraemer
Topic: 20136 Message: 20136

I have a new accessory product available.
The RCA jack and adapter plate to allow conversion of the Drake 2 pin vox relay connectors used on AC-4 supplies and L4-B linears to facilitate interconnection with a traditional RCA patch cord. Also, to allow easy key connection to other linears.
I have posted a couple pictures you can view
https://plus.google.com/photos/113224789148738909487/albums/6002265745351444321?authkey=CLiJsNb_k4rMeg

W8CQ, Jeff, will have these available on his website harbachelectronics.com soon. Look under the Drake equipment tab

Thank-you
Paul K0UYA

20137. Re: [DrakeRadio] new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 00:31:53 UTC
From: Garey Barrell
Topic: 20136 Message: 20137

Paul -

Cool! what's my percentage for 'design consultation'?? :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Paul Kraemer wrote:
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CLiJsNb_k4rMeg
>
> W8CQ, Jeff, will have these available on his website harbachelectronics.com
> soon. Look under the Drake equipment tab
>
> Thank-you
> Paul K0UYA
>

20138. meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 00:53:42 UTC
From: David Nichols
Topic: 20138 Message: 20138

TR-4CW
When I turn the rig on the S meter goes to the left and sticks there. I have to tap it to get it to release and return to zero. What stupid thing did I do to get it to do this?
** On another note; I now have a tone I know I shouldnt be hearing. When I turn the calibrator on I can hear a low level tone no matter what frequency I am on. It does of course get pretty loud on the hundreds. However, the low level tone is everywhere all the time with the calibrator turned on.

** I also have low S meter level on 10 meters for alignment adjustment. I can only get an S-4 level. But I am pretty sure I should be able to get something on the line of an S-9 reading with the calibrator on and it is only S-4.

I know I saw someone else working on a tone earlier. I wonder if its the same thing?
Good luck to whomever gets the TR-4 on ebay, mine is 38 serial numbers lower than that one.

David, KX7C

[Non-text portions of this message have been removed]

20139. Re: [DrakeRadio] new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:06:27 UTC
From: VE3AX/7
Topic: 20136 Message: 20139

Oh Great! Thanks Paul. Now I have to re-think my retirement strategy...been hoarding the two prong ones to provide my retirement income!

Oh well...win some, lose some. Just don’t go making any 1544’s.

73
Peter
VE3AX/7

From: Paul Kraemer
Sent: Thursday, April 17, 2014 5:25 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] new product available

I have a new accessory product available.
The RCA jack and adapter plate to allow conversion of the Drake 2 pin vox relay connectors used on AC-4 supplies and L4-B linears to facilitate interconnection with a traditional RCA patch cord. Also, to allow easy key connection to other linears.
I have posted a couple pictures you can view
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W8CQ, Jeff, will have these available on his website harbachelectronics.com soon. Look under the Drake equipment tab

Thank-you
Paul K0UYA

[Non-text portions of this message have been removed]

20140. AC-4 voltages

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:13:05 UTC
From: Paul Kraemer
Topic: 20140 Message: 20140

The question sometimes arises "what should the ac / dc voltages in my AC-4 measure"?
I recently recorded them on a typical AC-4. AC and DC voltages recorded
The readings are shown as sss / ddd Where sss is the static no load and ddd is the loaded to 100w output reading on TR-4C
Note that the line voltage here is NOT well regulated and that will affect things. Rather than constantly correcting the line voltage I thought it instructive to just call it as it appeared as it may very well represent typical status quo.
I don't mean to imply these readings are gospel---just typical and YMMV

AC line 120v / 119.4v
ACHV 259v / 252v
ACLV 103v / 101v
AC biaas 95v / 94v
DCHV 729v / 666v
DCLV 251v / 237v
AC fil 13.4v / 13.2v
Note all readings taken in the AC-4 not at the radio end of the cable or in the TR-4

Paul K0UYA

20141. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:13:46 UTC
From: Garey Barrell
Topic: 20138 Message: 20141

David -

Kind of a wild guess, because I've never seen this, but do you by any chance have a 6AQ5 at V17
rather than a 6AQ5A?

Have you replaced C135? C145B? Value and condition of R92?

Do you have a 6BZ6 at V5?

Have you used DeoxIT on the tube pins, especially V11, 12, 15 and 17??

So turn the Calibrator OFF when you're not using it!! :-) The earlier 'tone case' was different.

Are ALL the 10M Calibrator signals low? Have you tried a different harmonic.?

Try the 10(3) band if you have the crystal for it. Stronger? Weaker?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> TR-4CW
> When I turn the rig on the S meter goes to the left and sticks there. I have to tap it to get it to release and return to zero. What stupid thing did I do to get it to do this?
> ** On another note; I now have a tone I know I shouldnt be hearing. When I turn the calibrator on I can hear a low level tone no matter what frequency I am on. It does of course get pretty loud on the hundreds. However, the low level tone is everywhere all the time with the calibrator turned on.
>
> ** I also have low S meter level on 10 meters for alignment adjustment. I can only get an S-4 level. But I am pretty sure I should be able to get something on the line of an S-9 reading with the calibrator on and it is only S-4.
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> I know I saw someone else working on a tone earlier. I wonder if its the same thing?
> Good luck to whomever gets the TR-4 on ebay, mine is 38 serial numbers lower than that one.
>
> David, KX7C
>
>

20142. Re: [DrakeRadio] new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:25:18 UTC
From: Paul Kraemer
Topic: 20136 Message: 20142

OK
You got me there
What is a 1544?
Paul

From: "VE3AX/7" <ve3ax@...>
Sent: Thursday, April 17, 2014 8:06 PM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] new product available

> Oh Great! Thanks Paul. Now I have to re-think my retirement
> strategy...been hoarding the two prong ones to provide my retirement
> income!
>
> Oh well...win some, lose some. Just don’t go making any 1544’s.
>
> 73
> Peter
> VE3AX/7
>
> From: Paul Kraemer
> Sent: Thursday, April 17, 2014 5:25 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] new product available
>
>
> I have a new accessory product available.
> The RCA jack and adapter plate to allow conversion of the Drake 2 pin vox
> relay connectors used on AC-4 supplies and L4-B linears to facilitate
> interconnection with a traditional RCA patch cord. Also, to allow easy key
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> Thank-you
> Paul K0UYA
>
>
>

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> [Non-text portions of this message have been removed]
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>
> Yahoo Groups Links
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20143. Re: [DrakeRadio] new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:55:47 UTC
From: VE3AX/7
Topic: 20136 Message: 20143

I don’t think I should tell you!!!!! You have too many good ideas!

OK – it’s an RV-75 adaptor for the R-7 receiver. One of the Drake rarities.

73

Peter
AX/7

From: Paul Kraemer
Sent: Thursday, April 17, 2014 6:25 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] new product available

OK
You got me there
What is a 1544?
Paul

From: "VE3AX/7" <ve3ax@telus.net>
Sent: Thursday, April 17, 2014 8:06 PM
To: <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] new product available

> Oh Great! Thanks Paul. Now I have to re-think my retirement
> strategy...been hoarding the two prong ones to provide my retirement
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> 73
> Peter
> VE3AX/7
>
> From: Paul Kraemer
> Sent: Thursday, April 17, 2014 5:25 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] new product available
>
>
> I have a new accessory product available.
> The RCA jack and adapter plate to allow conversion of the Drake 2 pin vox
> relay connectors used on AC-4 supplies and L4-B linears to facilitate
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> Thank-you
> Paul K0UYA
>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20144. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 01:55:03 UTC
From: David Nichols
Topic: 20138 Message: 20144

OK, I do have a 6AQ5A at V17.

I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
6BZ6 is at V5
I used Deox Gold on all of the tube pins.
I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.
I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
David, KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 17, 2014 6:13 PM
Subject: Re: [DrakeRadio] meter peg

David -

Kind of a wild guess, because I've never seen this, but do you by any chance have a 6AQ5 at V17
rather than a 6AQ5A?

Have you replaced C135? C145B? Value and condition of R92?

Do you have a 6BZ6 at V5?

Have you used DeoxIT on the tube pins, especially V11, 12, 15 and 17??

So turn the Calibrator OFF when you're not using it!! :-) The earlier 'tone case' was different.

Are ALL the 10M Calibrator signals low? Have you tried a different harmonic.?

Try the 10(3) band if you have the crystal for it. Stronger? Weaker?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> TR-4CW
> When I turn the rig on the S meter goes to the left and sticks there. I have to tap it to get it to release and return to zero. What stupid thing did I do to get it to do this?
> ** On another note; I now have a tone I know I shouldnt be hearing. When I turn the calibrator on I can hear a low level tone no matter what frequency I am on. It does of course get pretty loud on the hundreds. However, the low level tone is everywhere all the time with the calibrator turned on.
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> I know I saw someone else working on a tone earlier. I wonder if its the same thing?
> Good luck to whomever gets the TR-4 on ebay, mine is 38 serial numbers lower than that one.
>
> David, KX7C
>
>

[Non-text portions of this message have been removed]

20145. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 02:10:55 UTC
From: David Nichols
Topic: 20138 Message: 20145

I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
David, KX7C

From: David Nichols <hamcomm7@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 6:55 PM
Subject: Re: [DrakeRadio] meter peg

OK, I do have a 6AQ5A at V17.

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David, KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 17, 2014 6:13 PM
Subject: Re: [DrakeRadio] meter peg

David -

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Do you have a 6BZ6 at V5?

Have you used DeoxIT on the tube pins, especially V11, 12, 15 and 17??

So turn the Calibrator OFF when you're not using it!! :-) The earlier 'tone case' was different.

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Try the 10(3) band if you have the crystal for it. Stronger? Weaker?

73, Garey - K4OAH
Glen Allen, VA

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> Good luck to whomever gets the TR-4 on ebay, mine is 38 serial numbers lower than that one.
>
> David, KX7C
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20146. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 02:25:12 UTC
From: David Nichols
Topic: 20138 Message: 20146

What a receiver! Im listening on 7.200 without an antenna or dummy load hooked up and can hear two stations talking. Im inside a sheet metal building and no windows in here.

David, KX7C

From: David Nichols <hamcomm7@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 7:10 PM
Subject: Re: [DrakeRadio] meter peg

I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
David, KX7C

From: David Nichols <hamcomm7@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 6:55 PM
Subject: Re: [DrakeRadio] meter peg

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David, KX7C

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 17, 2014 6:13 PM
Subject: Re: [DrakeRadio] meter peg

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Have you used DeoxIT on the tube pins, especially V11, 12, 15 and 17??

So turn the Calibrator OFF when you're not using it!! :-) The earlier 'tone case' was different.

Are ALL the 10M Calibrator signals low? Have you tried a different harmonic.?

Try the 10(3) band if you have the crystal for it. Stronger? Weaker?

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> David, KX7C
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20147. Re: [DrakeRadio] AC-4 voltages

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 03:22:43 UTC
From: Richard Knoppow
Topic: 20140 Message: 20147

----- Original Message -----
From: "Paul Kraemer" <elespe@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 6:13 PM
Subject: [DrakeRadio] AC-4 voltages

> The question sometimes arises "what should the ac / dc
> voltages in my AC-4
> measure"?
> I recently recorded them on a typical AC-4. AC and DC
> voltages recorded
> The readings are shown as sss / ddd Where sss is the
> static no load and ddd
> is the loaded to 100w output reading on TR-4C
> Note that the line voltage here is NOT well regulated and
> that will affect
> things. Rather than constantly correcting the line
> voltage I thought it
> instructive to just call it as it appeared as it may very
> well represent
> typical status quo.
> I don't mean to imply these readings are gospel---just
> typical and YMMV
>
> AC line 120v / 119.4v
> ACHV 259v / 252v
> ACLV 103v / 101v
> AC biaas 95v / 94v
> DCHV 729v / 666v
> DCLV 251v / 237v
> AC fil 13.4v / 13.2v
> Note all readings taken in the AC-4 not at the radio end
> of the cable or in
> the TR-4
>
> Paul K0UYA
>
In the past when I was trying to trouble shoot
something I took similar measurements but did them at the
end of the AC-4 cable while it disconnected from the load
and again inside the transmitter (T4XB) under load. I got
very similar measurements to yours although I think the DC
HV was somewhat lower. This was an AC-4 with the Heathkit
Shop upgrade in it. I think it would be worth checking the
filament voltage at the load end of the cable, I don't think

the other voltages are much effected but filament voltage
might be slightly.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20148. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 03:27:05 UTC
From: Richard Knoppow
Topic: 20138 Message: 20148

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 7:25 PM
Subject: Re: [DrakeRadio] meter peg

What a receiver! Im listening on 7.200 without an antenna or
dummy load hooked up and can hear two stations talking. Im
inside a sheet metal building and no windows in here.

David, KX7C

These are pixies inside the receiver talking to each
other and pretending to be radio stations. Have you missed
any small parts or tools lately?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20149. Re: NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 03:32:14 UTC
From: <k9rz@...>
Topic: 19991 Message: 20149

The auction just closed at $2136.
There was one at a local hamfest last weekend with the MS-4 speaker and AC-4 power supply that was being offered at $400 but had no takers at least while I was there. Was clean but well used. I already have too many projects to undertake another one!

73 de Bill, K9RZ

[Non-text portions of this message have been removed]

20150. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 04:23:25 UTC
From: David Nichols
Topic: 20138 Message: 20150

Well its American made so there cant be any Gremlins in it. hi hi
I feel like I have missed something, not sure what?
David, KX7C

From: Richard Knoppow <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 17, 2014 8:27 PM
Subject: Re: [DrakeRadio] meter peg

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 7:25 PM
Subject: Re: [DrakeRadio] meter peg

What a receiver! Im listening on 7.200 without an antenna or
dummy load hooked up and can hear two stations talking. Im
inside a sheet metal building and no windows in here.

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other and pretending to be radio stations. Have you missed
any small parts or tools lately?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

20151. New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 03:20:20 UTC
From: K8cix
Topic: 20151 Message: 20151

Hi, Name here is Roger, K8CIX, ham for 63 years. I just came into the possession of a very nice
set of Drake Twins. A T-4XB and a R-4B. Believe it or not I use to own a Drake Station in the 70's
and I should not have to ask for help on this matter.

On SSB when I tune in a station to what I believe is normal voice and transmit. I get the same horrible
response, " your off frequency"! I have checked everything I can think of after reading the manuals
cover to cover. I did do the Carrier Oscillator adjustment of C61 and found it off approx. 4 turns. But
this did not fix the problem completely. Using spot and calibrate and checking all three positions,
Separate, Rcvr & Xmtr. all three track perfectly to the same frequency. But when I tune in a station
as I have for over 1/2 a century I still am off frequency by a couple hundred cycles or more.

Is it my old age making me unable to tune in a station anymore or am I missing something?

Roger

[Non-text portions of this message have been removed]

20152. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 05:30:36 UTC
From: Jim Shorney
Topic: 20138 Message: 20152

On Thu, 17 Apr 2014 19:10:55 -0700 (PDT), David Nichols wrote:

>I guess tube testers just wont tell you everything.

This we keep telling people.... :D

73

-Jim
NU0C
--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

20153. Re: [DrakeRadio] new product available

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 11:09:15 UTC
From: vacuuminded2@...
Topic: 20136 Message: 20153

Great job, looks good! I was actually thinking about making up some kits just like this, thanks for saving me the time!

Now that these pre-fabbed and LEGAL MOD kits are out there, I could really use a pair of plugs or a factory made cable if someone is willing to part with some!

Regards,
Chris

Sent from my outdated iPhone wireless thingy

On Apr 17, 2014, at 7:25 PM, "Paul Kraemer" <elespe@...> wrote:

> I have a new accessory product available.
> The RCA jack and adapter plate to allow conversion of the Drake 2 pin vox
> relay connectors used on AC-4 supplies and L4-B linears to facilitate
> interconnection with a traditional RCA patch cord. Also, to allow easy key
> connection to other linears.
> I have posted a couple pictures you can view
> https://plus.google.com/photos/113224789148738909487/albums/6002265745351444321?authkey=CLiJsNb_k4rMeg
>
> W8CQ, Jeff, will have these available on his website harbachelectronics.com
> soon. Look under the Drake equipment tab
>
> Thank-you
> Paul K0UYA
>
>

[Non-text portions of this message have been removed]

20154. Re: [DrakeRadio] AC-4 voltages

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 11:53:38 UTC
From: Steve Wedge
Topic: 20140 Message: 20154

The most important thing to carry away from measurements of unregulated supplies like this is the expected ranges of the voltages. At 120VAC in, the values can be as much as 5% different. At 750V, this is nearly 40V.

The voltages shown below are certainly within reason.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Richard Knoppow
Sent: Thursday, April 17, 2014 11:22 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] AC-4 voltages

----- Original Message -----
From: "Paul Kraemer" <elespe@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 6:13 PM
Subject: [DrakeRadio] AC-4 voltages

> The question sometimes arises "what should the ac / dc
> voltages in my AC-4
> measure"?
> I recently recorded them on a typical AC-4. AC and DC
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> The readings are shown as sss / ddd Where sss is the
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> is the loaded to 100w output reading on TR-4C
> Note that the line voltage here is NOT well regulated and
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> typical and YMMV
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> AC line 120v / 119.4v
> ACHV 259v / 252v
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> of the cable or in
> the TR-4
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> Paul K0UYA
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and again inside the transmitter (T4XB) under load. I got
very similar measurements to yours although I think the DC
HV was somewhat lower. This was an AC-4 with the Heathkit
Shop upgrade in it. I think it would be worth checking the
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the other voltages are much effected but filament voltage
might be slightly.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

20155. Re: [DrakeRadio] Re: NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 11:57:20 UTC
From: Steve Wedge
Topic: 19991 Message: 20155

The difference here being, "Well-used". $400 for a good TR-4CW RIT with speaker and supply is an exceptional deal. Hamfests are good places to find bargains. But so is eBay - you just have to be patient.

$2100 went beyond my prediction of $1700. The set is a true condition rarity and is worth what a collector is willing to pay for it.

Steve Wedge, W1ES/4

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From: k9rz@...
Sent: Thursday, April 17, 2014 11:32 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: NIB TR-4CW rit

The auction just closed at $2136.
There was one at a local hamfest last weekend with the MS-4 speaker and AC-4 power supply that was being offered at $400 but had no takers at least while I was there. Was clean but well used. I already have too many projects to undertake another one!

73 de Bill, K9RZ

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20156. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 11:58:35 UTC
From: Steve Wedge
Topic: 20151 Message: 20156

Did you adjust C61 in SSB or CW mode?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: K8cix
Sent: Thursday, April 17, 2014 11:20 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] New member with a problem.

Hi, Name here is Roger, K8CIX, ham for 63 years. I just came into the possession of a very nice
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this did not fix the problem completely. Using spot and calibrate and checking all three positions,
Separate, Rcvr & Xmtr. all three track perfectly to the same frequency. But when I tune in a station
as I have for over 1/2 a century I still am off frequency by a couple hundred cycles or more.

Is it my old age making me unable to tune in a station anymore or am I missing something?

Roger

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20157. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 12:00:31 UTC
From: Steve Wedge
Topic: 20138 Message: 20157

A good tube tester works great as a screening device. It can't catch everything.

Had an R-4B that sounded terrible, once. I had tested all the tubes but something wasn't right. That's when I started subbing and found a noisy 12BE6.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Jim Shorney
Sent: Friday, April 18, 2014 1:30 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] meter peg

On Thu, 17 Apr 2014 19:10:55 -0700 (PDT), David Nichols wrote:

>I guess tube testers just wont tell you everything.

This we keep telling people.... :D

73

-Jim
NU0C
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The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

[Non-text portions of this message have been removed]

20158. Re: [DrakeRadio] Re: NIB TR-4CW rit

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 12:07:28 UTC
From: Doug Coffman
Topic: 19991 Message: 20158

It exceeded my prediction as well, goo thing we didn't wager Steve.

I still question the label on the noise blanker. They don't get that way unless heat is present.

Doug - N9XTF

Sent from my iPhone

> On Apr 18, 2014, at 7:57, "Steve Wedge" <w1es1982@...> wrote:
>
> The difference here being, "Well-used". $400 for a good TR-4CW RIT with speaker and supply is an exceptional deal. Hamfests are good places to find bargains. But so is eBay - you just have to be patient.
>
> $2100 went beyond my prediction of $1700. The set is a true condition rarity and is worth what a collector is willing to pay for it.
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
> From: k9rz@...
> Sent: Thursday, April 17, 2014 11:32 PM
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] Re: NIB TR-4CW rit
>
> The auction just closed at $2136.
> There was one at a local hamfest last weekend with the MS-4 speaker and AC-4 power supply that was being offered at $400 but had no takers at least while I was there. Was clean but well used. I already have too many projects to undertake another one!
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>
> [Non-text portions of this message have been removed]
>
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>
>

[Non-text portions of this message have been removed]

20159. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 13:37:39 UTC
From: Garey Barrell
Topic: 20138 Message: 20159

David -

You skipped ahead several steps! :-)

The reason is that the stage current of V4, 11 and 15 is compared with the stage current of V17
in the S-Meter bridge. With a 6AQ5A all four tubes are '11 second warm-up' type, allowing the
currents to come up pretty close together. If the 6AQ5A comes up slowly, the meter deflects negative. I'm wondering if the DeoxIT suggestion might work, just a little corrosion on the filament pins that would clear up? If you put the OLD tube back in, is it ok?

Does T1 peak (dropping off on EITHER side of the peak)? It's been a while since I've been in a
TR-4C, but I believe it's a bit broad tuning. Are you using the alignment load as described??
Top and bottom adjustment respond similarly? Since it tunes up in transmit normally, the only
two tubes that are suspect are V4 and V7.

The Calibrator signal is injected by a piece of wire that goes from the Calibrator output to the
BAND switch wafer. The wire is NOT connected to a terminal on the switch, rather it is 'woven'
through two holes in the phenolic, i.e., brought 'close' to the RF Stage input.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
> David, KX7C
>
>
>
>
> _____
> From: David Nichols <hamcomm7@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, April 17, 2014 6:55 PM
> Subject: Re: [DrakeRadio] meter peg

>
>
>
>
> OK, I do have a 6AQ5A at V17.
>
> I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
> R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
> 6BZ6 is at V5
> I used Deox Gold on all of the tube pins.
> I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
> Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.
> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
> David, KX7C
>
>

20160. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 14:14:57 UTC
From: Garey Barrell
Topic: 20151 Message: 20160

Hello Roger -

Welcome to the group! You have six years on me, so we're in the same 'class'! :-)

The B-Line is my favorite Drake station, and is my 'daily driver'.

To your problem..... perhaps the other station has HIS RIT 'on'!? :-)

The C61 setting should put them on 'exactly' the same frequency. Are the color coded crystals
the same? (Letter at the end of the s/n's). Does your station location have large temperature
swings? Are you certain you're doing the C61 adjustment correctly? You should be able to adjust for 'zero' tweets. It won't stay there, but will typically dither +/-5 Hz.

Some clowns just can't pass up an opportunity to denigrate a tube type station from their lofty
10 digit YaeComWood perch!. The Rettysnitch is appropriate. Check with someone you trust!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

K8cix wrote:
> Hi, Name here is Roger, K8CIX, ham for 63 years. I just came into the possession of a very nice
> set of Drake Twins. A T-4XB and a R-4B. Believe it or not I use to own a Drake Station in the 70's
> and I should not have to ask for help on this matter.
>
> On SSB when I tune in a station to what I believe is normal voice and transmit. I get the same horrible
> response, " your off frequency"! I have checked everything I can think of after reading the manuals
> cover to cover. I did do the Carrier Oscillator adjustment of C61 and found it off approx. 4 turns. But
> this did not fix the problem completely. Using spot and calibrate and checking all three positions,
> Separate, Rcvr & Xmtr. all three track perfectly to the same frequency. But when I tune in a station
> as I have for over 1/2 a century I still am off frequency by a couple hundred cycles or more.
>

> Is it my old age making me unable to tune in a station anymore or am I missing something?
>
> Roger
>
>

20161. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 14:41:00 UTC
From: Don Cunningham
Topic: 20151 Message: 20161

Roger,
Welcome to the group. As Garey said, do the checks on the frequency netting in the manual then just use the gear. The modern frequency controller wizards on the air even tell me I'm off frequency when I'm not exactly on the zero or five as the last digit of the frequency when I call CQ!!!!!!!! I marvel at the ignorance sometimes. Just ignore them and move to the next QSO if they persist, not all will be that way, I assure you.

I am net control of a Collins Net a few times a month on 75M. Join us there if you like with your Drake gear, others often do (me included). I ran the net last night, and most were off frequency much further than that, HI. I tell them that's what the RIT is for on my gear. I always run modern gear as net control for the noise reduction so I can hear the weakest barefoot checkins, but as a "regular" checkin, I exercise my Collins, Drake, Heathkit or other tube gear. We run usually three rounds with stations and some of them change rigs each round!!! Lots of fun, many great sounding old rigs and meets Tuesdays and Thursdays at 8 pm CST around 3805 plus or minus QRM. All interested in old radio gear are welcome. Several check in from this group and are made very welcome there. Sorry Garey for the "C" word, but the welcome is a true one. Chris, Mark, and others can attest to that!! I am net control again next Thursday night, the 24th and again the following Tuesday this month.
73,
Don, WB5HAK
On 4/17/2014 10:20 PM, K8cix wrote:
>
>
> Hi, Name here is Roger, K8CIX, ham for 63 years. I just came into the
> possession of a very nice
> set of Drake Twins. A T-4XB and a R-4B. Believe it or not I use to own
> a Drake Station in the 70's
> and I should not have to ask for help on this matter.
>
> On SSB when I tune in a station to what I believe is normal voice and
> transmit. I get the same horrible
> response, " your off frequency"! I have checked everything I can think
> of after reading the manuals
> cover to cover. I did do the Carrier Oscillator adjustment of C61 and
> found it off approx. 4 turns. But
> this did not fix the problem completely. Using spot and calibrate and
> checking all three positions,
> Separate, Rcvr & Xmtr. all three track perfectly to the same
> frequency. But when I tune in a station
> as I have for over 1/2 a century I still am off frequency by a couple

> hundred cycles or more.
>
> Is it my old age making me unable to tune in a station anymore or am I
> missing something?
>
> Roger
>
> [Non-text portions of this message have been removed]
>
>

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[Non-text portions of this message have been removed]

20162. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 15:29:32 UTC
From: Garey Barrell
Topic: 20151 Message: 20162

Don -

My S-Line (75S-3B, 32S-3, 312B-4, 30L-1 & 516F-2) is in boxes in the closet since the move.
.

The B-Line is on the desk! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> Sorry Garey for the "C" word, but the welcome is a true one.
> Chris, Mark, and others can attest to that!!

20163. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 15:41:42 UTC
From: Don Cunningham
Topic: 20151 Message: 20163

Garey,
I understand. I might be the same here, if I could only have one set out. I am fortunate, and know it, and can have most of it out. I used to say all of it, then I went nuts, and now some of it has to be in the garage!!!!!!! Just got to be too much out here in the "shack" and it's HUGE.

It's an ADDICTION, but mine has Drake, lots of it, Collins, Heathkit, Johnson, Lafayette, Trio, Allied, Knight Kit, and I have bought a Central Electronics 20A that hasn't been delivered yet!!!! I guess I need treatment, Garey!!!!!!!! I am sure I have slighted some poor brand name that I'll see later in the day weeping in the corner, and I haven't even mentioned any of the Ten Tec, Elecraft or Japanese modern wonders gracing the place. It's a good thing I have a marvelous, supportive wife, isn't it??? And, sorry guys, no sisters!!!!!!
73, back into my cave,
Don, WB5HAK
On 4/18/2014 10:29 AM, Garey Barrell wrote:
>
> Don -
>
> My S-Line (75S-3B, 32S-3, 312B-4, 30L-1 & 516F-2) is in boxes in the
> closet since the move. .
>
> The B-Line is on the desk! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Don Cunningham wrote:
> > Sorry Garey for the "C" word, but the welcome is a true one.
> > Chris, Mark, and others can attest to that!!
>
>

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[Non-text portions of this message have been removed]

20164. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 15:44:08 UTC
From: Richard Knoppow
Topic: 20151 Message: 20164

----- Original Message -----
From: "K8cix" <k8cix@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 17, 2014 8:20 PM
Subject: [DrakeRadio] New member with a problem.

>
> Hi, Name here is Roger, K8CIX, ham for 63 years. I
> just came into the possession of a very nice
> set of Drake Twins. A T-4XB and a R-4B. Believe it or
> not I use to own a Drake Station in the 70's
> and I should not have to ask for help on this matter.
>
> On SSB when I tune in a station to what I believe is
> normal voice and transmit. I get the same horrible
> response, " your off frequency"! I have checked
> everything I can think of after reading the manuals
> cover to cover. I did do the Carrier Oscillator
> adjustment of C61 and found it off approx. 4 turns. But
> this did not fix the problem completely. Using spot and
> calibrate and checking all three positions,
> Separate, Rcvr & Xmtr. all three track perfectly to the
> same frequency. But when I tune in a station
> as I have for over 1/2 a century I still am off frequency
> by a couple hundred cycles or more.
>
> Is it my old age making me unable to tune in a station
> anymore or am I missing something?
>
> Roger
>
Are you using the twins as separates or in
Transceiver? C-61 has an effect only in transceive and
should not affect the tuning when operating separately. In
either case you can hear your own signal on the receiver by
turning off the mute. Use headphones! That will tell you
immediately if there is a change in frequency. About the
only cause I can think of is a change in voltage on the VFO
between Spot and transmitting. Garrey will know if this is
a possible problem in the Drake gear. If you are
zero-beating using the "Spot" function I don't think your
hearing would affect the tuning.

--
Richard Knoppow

Los Angeles
WB6KBL
dickburk@...

20165. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 16:31:58 UTC
From: Jim Shorney
Topic: 20151 Message: 20165

On Fri, 18 Apr 2014 10:14:57 -0400, Garey Barrell wrote:

>Some clowns just can't pass up an opportunity to denigrate a tube type station from their lofty
>10 digit YaeComWood perch!. The Rettysnitch is appropriate.

Is today your turn to be crotchety? :)

73

-Jim
NU0C
--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20166. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 17:06:28 UTC
From: Steve Toth
Topic: 20151 Message: 20166

I think it has to do with nostalgia - BTW.... anybody out there have a WRL Globe Chief (gotta love those 807's!) or Globe Champion they want to part with? - (the Chief was my first "good" transmitter after the ARC-5 gear)

-- Steve

"Technically........the glass is ALWAYS full."

On Fri, 4/18/14, Don Cunningham <donc@martineer.net> wrote:

Subject: Re: [DrakeRadio] New member with a problem.
To: DrakeRadio@yahoogroups.com
Date: Friday, April 18, 2014, 8:41 AM

Garey,
I understand. I might be the same here, if I could
only have one set
out. I am fortunate, and know it, and can have most of
it out. I used
to say all of it, then I went nuts, and now some of it has
to be in the
garage!!!!!!!! Just got to be too much out here in the
"shack" and it's
HUGE.

It's an ADDICTION, but mine has Drake, lots of it, Collins,
Heathkit,
Johnson, Lafayette, Trio, Allied, Knight Kit, and I have
bought a
Central Electronics 20A that hasn't been delivered yet!!!! I
guess I
need treatment, Garey!!!!!!!! I am sure I have
slighted some poor brand
name that I'll see later in the day weeping in the corner,
and I haven't
even mentioned any of the Ten Tec, Elecraft or Japanese
modern wonders
gracing the place. It's a good thing I have a
marvelous, supportive
wife, isn't it??? And, sorry guys, no sisters!!!!!!
73, back into my cave,
Don, WB5HAK
On 4/18/2014 10:29 AM, Garey Barrell wrote:
>
> Don -

>
> My S-Line (75S-3B, 32S-3, 312B-4, 30L-1 & 516F-2)
is in boxes in the
> closet since the move. .
>
> The B-Line is on the desk! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Don Cunningham wrote:
> > Sorry Garey for the "C" word, but the welcome is a
true one.
> > Chris, Mark, and others can attest to that!!
>
>

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Yahoo Groups Links

    DrakeRadio-fullfeatured@yahoogroups.com

20167. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 17:53:38 UTC
From: Henry L. Dorkin
Topic: 20167 Message: 20167

This message was originally HTML formatted. View in a HTML capable client to see the original version.\r\n\r\n Don - So, in contests, do you enter as "single op /multi rig"??

73 de WM1V
Hank

---- Original Message ----
From: "Don Cunningham" donc@...
Sent: 4/18/2014 11:43:54 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] New member with a problem.

Garey,
I understand. I might be the same here, if I could only have one set out. I am fortunate, and know it, and can have most of it out. I used to say all of it, then I went nuts, and now some of it has to be in the garage!!!!!!!! Just got to be too much out here in the "shack" and it's HUGE.

It's an ADDICTION, but mine has Drake, lots of it, Collins, Heathkit, Johnson, Lafayette, Trio, Allied, Knight Kit, and I have bought a Central Electronics 20A that hasn't been delivered yet!!!! I guess I need treatment, Garey!!!!!!!! I am sure I have slighted some poor brand name that I'll see later in the day weeping in the corner, and I haven't even mentioned any of the Ten Tec, Elecraft or Japanese modern wonders gracing the place. It's a good thing I have a marvelous, supportive wife, isn't it??? And, sorry guys, no sisters!!!!!!
73, back into my cave,
Don, WB5HAK
On 4/18/2014 10:29 AM, Garey Barrell wrote:

Don -

My S-Line (75S-3B, 32S-3, 312B-4, 30L-1 516F-2) is in boxes in the closet since the move. .

The B-Line is on the desk! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
www.k4oah.com

Don Cunningham wrote:
Sorry Garey for the "C" word, but the welcome is a true one.

Chris, Mark, and others can attest to that!!

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[Non-text portions of this message have been removed]

20168. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 18:03:17 UTC
From: Don Cunningham
Topic: 20151 Message: 20168

Hank,
Early on, I couldn't figure that out, so I just DON'T contest, HI. It would be very confusing if you ever saw this mess. It is an L-shaped counter top in a room about 15 x 20, actually a "sunroom" built out of part of a covered patio several years ago, and the wife said to build my shack in here and leave her one corner so she could have her painting in here too. Works well, but she didn't get a lot of room, HI. Radios are three levels high about 10 x 15 around the room, and sure nice eye candy, with some SWL gear on an opposing wall.

Lots of fun, but some of it will go in a while, as I get it cleaned inside once again, checked out and working well. It's time to pass some along. Some is on the air several times a month though.
73,
Don, WB5HAK
On 4/18/2014 12:53 PM, Henry L. Dorkin wrote:
>
> This message was originally HTML formatted. View in a HTML capable
> client to see the original version.\r\n\r\n Don - So, in contests, do
> you enter as "single op /multi rig"?? 73 de WM1V Hank ---- Original
> Message ---- From: "Don Cunningham" donc@... Sent: 4/18/2014
> 11:43:54 AM To: DrakeRadio@yahoogroups.com Subject: Re: [DrakeRadio]
> New member with a problem. Garey, I understand. I might be the same
> here, if I could only have one set out. I am fortunate, and know it,
> and can have most of it out. I used to say all of it, then I went
> nuts, and now some of it has to be in the garage!!!!!!!! Just got to
> be too much out here in the "shack" and it's HUGE. It's an ADDICTION,
> but mine has Drake, lots of it, Collins, Heathkit, Johnson, Lafayette,
> Trio, Allied, Knight Kit, and I have bought a Central Electronics 20A
> that hasn't been delivered yet!!!! I guess I need tre atment,
> Garey!!!!!!!! I am sure I have slighted some poor brand name that I'll
> see later in the day weeping in the corner, and I haven't even
> mentioned any of the Ten Tec, Elecraft or Japanese modern wonders
> gracing the place. It's a good thing I have a marvelous, supportive
> wife, isn't it??? And, sorry guys, no sisters!!!!!! 73, back into my
> cave, Don, WB5HAK On 4/18/2014 10:29 AM, Garey Barrell wrote: Don - My
> S-Line (75S-3B, 32S-3, 312B-4, 30L-1 516F-2) is in boxes in the closet
> since the move. . The B-Line is on the desk! :-) 73, Garey - K4OAH
> Glen Allen, VA Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line and TR-4/C
> Service Supplement CDs www.k4oah.com Don Cunningham wrote: Sorry Garey
> for the "C" word, but the welcome is a true one. Chris, Mark, and
> others can attest to that!! --- This email is free from viruses and
> malware because avast! Antivirus protection is active.
> http://www.avast.com [Non-text portions of this message have been
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> [Non-text portions of this message have been removed]
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>

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http://www.avast.com

[Non-text portions of this message have been removed]

20169. Re: Help with TR-4C T2 transformer coil

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 18:08:02 UTC
From: <blastofos@...>
Topic: 20123 Message: 20169

Hi Terry,

Thanks for the helpful and detailed information.
I wrote to the dealer asking by more info in the website that you gave me.

I hope in the close future tell you what happened..

73s

Lopes - PY2SM

[Non-text portions of this message have been removed]

20170. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 18:15:06 UTC
From: Garey Barrell
Topic: 20151 Message: 20170

Must be!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> On Fri, 18 Apr 2014 10:14:57 -0400, Garey Barrell wrote:
>
>> Some clowns just can't pass up an opportunity to denigrate a tube type station from their lofty
>> 10 digit YaeComWood perch!. The Rettysnitch is appropriate.
>
> Is today your turn to be crotchety? :)
>
> 73
>
> -Jim
> NU0C
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
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>
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>
> Yahoo Groups Links
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20171. MN-2000 Bandswitch Knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 18:49:19 UTC
From: <mike@...>
Topic: 20171 Message: 20171

Hi:

Does anyone know of a good source for the Bandswitch Knob for the MN-2000 Tuner. I would like to keep the unit in original condition. Tnx.

73 De Mike
VE3YF

[Non-text portions of this message have been removed]

20172. The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 19:36:04 UTC
From: lane denune
Topic: 20172 Message: 20172

Hello Drake Pros...

Found a FB SPR4 on the bay and is to be delivered shortly. It has the NB5 & 100kc calibrator with a full compliment of crystals.
What can the Drake Gurus tell me about the SPR4 receivers? Hints, Kinks, Tips and experience? Marked with Serial #6164.

Please and Thank You....lane in Columbus, Ohio. 73 n8aft SK ..

[Non-text portions of this message have been removed]

20173. Replacing meter bulb on T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 20:39:02 UTC
From: <rochep@...>
Topic: 20173 Message: 20173

This must have been asked and answered a million times, but I noticed the #47 bulb on my T4XB is VERY dim (tests OK on dial meter) so I want to get it out and take voltage readings (and replace blue filter). But I can't figure out how to EASILY to get the bulb out of the holder. I have completely disassembled the S meter to do it, that must not be right! What am I doing wrong? My fat fingers just can't get in that tiny space to "push down" on the bulb.

paul

[Non-text portions of this message have been removed]

20174. POWER OFF

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 20:47:11 UTC
From: Garey Barrell
Topic: 20173 Message: 20174

The socket has a clip that slides onto the edge of the meter housing. Just push it off, (POWER
OFF, IF IT SHORTS TO THE HOUSING IT'LL BLOW THE FILAMENT FUSE!,) then slide it back on the housing. Check the socket terminals, they rotate rather freely to make sure neither of them are
touching the housing. THEN apply power.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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>
> paul
>
>

20175. Re: [DrakeRadio] Replacing meter bulb on T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 20:50:49 UTC
From: Garey Barrell
Topic: 20173 Message: 20175

Forgot... The blue filter is just a narrow strip. When the bulb socket is out, you can pick out
the filter strip. Replace it by curling into a "U" shape and put it back like you found it!
:-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

rochep@... wrote:
> This must have been asked and answered a million times, but I noticed the #47 bulb on my T4XB is VERY dim (tests OK on dial meter) so I want to get it out and take voltage readings (and replace blue filter). But I can't figure out how to EASILY to get the bulb out of the holder. I have completely disassembled the S meter to do it, that must not be right! What am I doing wrong? My fat fingers just can't get in that tiny space to "push down" on the bulb.
>
> paul
>
>

20176. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 21:15:51 UTC
From: David Nichols
Topic: 20138 Message: 20176

OK, Since the Deox Gold isnt really a cleaner I used the red stuff this time and redone the the gold on all of the tubes.
I have changed out V4 and V7, have not powered up to check anything. I am working on a fan installation. I had wanted to get it to 100% operation before I went for any changes but I am impatient I suppose. Once since I put the new 6AQ5A in i did see the meter go to the left. Im still thinking about that issue. For the most part I am working things out and with advise from you and the group Ill either put the flames out crying on it or fix it. hi hi
During T1 adjustment, the top adjusting screw did all the work. I didnt get any response from the bottom adjustment at all. It also has a little tight spot that doesnt feel right to me. Most of the adjustments in this rig are smooth and the bottom of T1 is not. I may have found one, not sure yet, waiting on reply for that. In any event, I will pull T1 and see what it looks like.
By the way, I pulled C130 apart. I was not having a good time finding a sweet spot with the SSB balance, I cleaned it up and put it back in. First time doing one of those. Installed a new 6GX6 and I heard a spot that made me happy. The sound level differential between USB AND LSB just played with my head.
On the calibrator and the wire to the band switch. I thought that might be why that wire was there. I ran into a wire much like that in an old Hallicrafters S38A if i remember right. Learned not to monkey dead end wires in tube rigs.
David, KX7C

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Friday, April 18, 2014 6:37 AM
Subject: Re: [DrakeRadio] meter peg

David -

You skipped ahead several steps! :-)

The reason is that the stage current of V4, 11 and 15 is compared with the stage current of V17
in the S-Meter bridge. With a 6AQ5A all four tubes are '11 second warm-up' type, allowing the
currents to come up pretty close together. If the 6AQ5A comes up slowly, the meter deflects negative. I'm wondering if the DeoxIT suggestion might work, just a little corrosion on the filament pins that would clear up? If you put the OLD tube back in, is it ok?

Does T1 peak (dropping off on EITHER side of the peak)? It's been a while since I've been in a
TR-4C, but I believe it's a bit broad tuning. Are you using the alignment load as described??
Top and bottom adjustment respond similarly? Since it tunes up in transmit normally, the only

two tubes that are suspect are V4 and V7.

The Calibrator signal is injected by a piece of wire that goes from the Calibrator output to the
BAND switch wafer. The wire is NOT connected to a terminal on the switch, rather it is 'woven'
through two holes in the phenolic, i.e., brought 'close' to the RF Stage input.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
> David, KX7C
>
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> _____
> From: David Nichols <hamcomm7@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, April 17, 2014 6:55 PM
> Subject: Re: [DrakeRadio] meter peg
>
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>
> OK, I do have a 6AQ5A at V17.
>
> I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
> R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
> 6BZ6 is at V5
> I used Deox Gold on all of the tube pins.
> I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
> Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.
> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to

play with. I just got this rig about a month ago. It just needs some TLC.
> David, KX7C
>
>

[Non-text portions of this message have been removed]

20177. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 21:28:23 UTC
From: <garywinblad@...>
Topic: 20151 Message: 20177

With Drake separates, the easy way to know if you are off frequency is to just leave the R-4 on ("ON" position, not "EXT MUTE") and listen to yourself. Its the only way I operate.
73,
Gary
WB6OGD

[Non-text portions of this message have been removed]

20178. Re: [DrakeRadio] MN-2000 Bandswitch Knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 21:30:01 UTC
From: Evan Rolek
Topic: 20171 Message: 20178

KC9YS, Al, is a great guy and might stock them.

-----Original Message-----
From: mike <mike@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, Apr 18, 2014 2:52 pm
Subject: [DrakeRadio] MN-2000 Bandswitch Knob

Hi:

Does anyone know of a good source for the Bandswitch Knob for the MN-2000 Tuner. I would like to keep the unit in original condition. Tnx.

73 De Mike
VE3YF

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20179. Re: New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 21:56:22 UTC
From: K8cix
Topic: 20151 Message: 20179

I appreciate all the input to my question. I think that I will not worry any longer. Seems that even
if I am the one calling CQ and my call frequency does not end in zero some how when I get an answer
I still seem to be off frequency. Strange since I am the one calling CQ. I check into the noon time net
on 40 meters at 7268.5 and most of the fellows have modern rigs and probably are on frequency
within a few cycles. Anyway if they have a modern rig then they also have a RIT and if I am off a
few cycles then I won't worry. Just hearing the dreaded, "Your off Frequency" drives me crazy.

I guess I am just too old to understand the so called, new rules and it appears my time has passed.

Roger, K8CIX

[Non-text portions of this message have been removed]

20180. Re: [DrakeRadio] Re: New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 22:01:59 UTC
From: Doug Smith
Topic: 20151 Message: 20180

I wonder if there is any chance you?re on frequency but that the alignment is a little off so you sound either muffled or ?tinny? and that?s what the complaint really is about. If it were me, I?d listen to myself and have a trusted friend (e.g. anyone on this list) listen to me.

Just thinking out loud?

73,
Doug, W7KF
http://www.w7kf.com

On Apr 18, 2014, at 3:56 PM, K8cix <k8cix@...> wrote:

>
> I appreciate all the input to my question. I think that I will not worry any longer. Seems that even
> if I am the one calling CQ and my call frequency does not end in zero some how when I get an answer
> I still seem to be off frequency. Strange since I am the one calling CQ. I check into the noon time net
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>
> Roger, K8CIX
>
> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20181. Re: [DrakeRadio] Re: New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 22:02:39 UTC
From: Dan Galligan
Topic: 20151 Message: 20181

Simply inform those curmudgeons, that they must be "Appliance Operators" unable to use the RIT, on their multi thousand dollar rig, nor figure out real ham radio, where one must actually operate their rig.
It's not cellular phones, after all.
Heck, I find that AM broadcast stations, are often off, a little bit, when I tune them in, be it on a boat anchor, or a modern "shack in the box"!

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

> On Apr 18, 2014, at 16:56, K8cix <k8cix@...> wrote:
>
>
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> Roger, K8CIX
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20182. Re: [DrakeRadio] Re: New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 22:08:04 UTC
From: Doug Smith
Topic: 20151 Message: 20182

Didn?t the spec for AM broadcast used to be plus or minus 20 hertz? Not as good as WWV!

Don?t know what it is now..

73,
Doug, W7KF
http://www.w7kf.com

On Apr 18, 2014, at 4:02 PM, Dan Galligan <w3rxo@...> wrote:

> Simply inform those curmudgeons, that they must be "Appliance Operators" unable to use the RIT, on their multi thousand dollar rig, nor figure out real ham radio, where one must actually operate their rig.
> It's not cellular phones, after all.
> Heck, I find that AM broadcast stations, are often off, a little bit, when I tune them in, be it on a boat anchor, or a modern "shack in the box"!
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states.
> Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
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> Read more at http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
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20183. Re: [DrakeRadio] Re: New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 22:23:36 UTC
From: Dan Galligan
Topic: 20151 Message: 20183

Doug,
I'm not sure what the standard is/was, but 20-25 Hz, is about where I used to typically find KFI AM640, when I'd tune it in, on a Kenwood TS-570S, back when I lived in Lost Angeles. There were times that it seemed more. But, was likely my imagination.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

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>
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> Doug, W7KF
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20184. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-18 23:08:25 UTC
From: Steve Wedge
Topic: 20172 Message: 20184

You probably already know, Lane, that this rig is fully solid-state. It comes with, IIRC, about 8-10 crystals from the factory and you buy and install others to suit your needs.

There can be issues with the power supply/AGC board. Both circuits are on the same board and the power supply generated lots of heat. Check the power resistors on that board when you get it and replace them if they show signs of stress. If it has the power cord, look for signs of stress where the cord goes into the moulded part. Wrap any bare conductors there so that you don't get zapped. Those power cords are made of Unobtanium - I just saw one selling on eBay for about $70.

Removing boards from this set can be a major PITA, so try to avoid doing it. I bought one that needed work from eBay, thinking I'd just put the board back in, and Voila! It was far from "Voila!". I actually borrowed a working SPR-4 from K9SUL so that I could see where all the wires went.

Once I got it running, it played really nice. It will not have the selectivity of an R-4B but its intended purpose was for monitoring SW broadcasts, with capability to copy SSB and CW thrown in.
Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: lane denune
Sent: Friday, April 18, 2014 3:36 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] The "New" SPR-4

Hello Drake Pros...

Found a FB SPR4 on the bay and is to be delivered shortly. It has the NB5 & 100kc calibrator with a full compliment of crystals.
What can the Drake Gurus tell me about the SPR4 receivers? Hints, Kinks, Tips and experience? Marked with Serial #6164.

Please and Thank You....lane in Columbus, Ohio. 73 n8aft SK ..

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20185. Re: [DrakeRadio] Replacing meter bulb on T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:00:40 UTC
From: <rochep@...>
Topic: 20173 Message: 20185

Got it back together and managed to replace the blue strip. But one thing I noticed, when I use a #47 bulb in the main dial socket, my #47 bulb in the S meter burns bright. But when I put one of the 2BRadioParts blue LED bulbs in the main dial socket, my #47 bulb in the S meter is very weak. Has anyone else noticed this? I do not notice this behavior in my T4XC transmitter, just this T4XB. Strange. But I am going old' school and gonna use a #47 and new blue filter.

paul

[Non-text portions of this message have been removed]

20186. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:26:22 UTC
From: Garey Barrell
Topic: 20138 Message: 20186

David -

On T1..... One of the ways you can get into trouble with these double tuned transformers is if
one slug is in too far, i.e., on 'outside' of resonance, and it bumps into the other slug. You
might try backing that bottom slug all the way out and then go back in watching for the peak.

The converse is also true. If the top slug is in too far and you're on the bottom side, same
problem.

Sounds confusing even to me!! If you have a coil, and the slug starts from way OUT, as you screw it further in, as soon as enough core material is within the field of the coil to hit resonance, you're good. BUT, if you keep turning there will be another resonant point as the
core goes through the coil and starts out the other side. If it's on that second 'exiting' resonance, it may be far enough down to prevent the bottom coil from getting far enough into its
coil to resonate.

Bottom line, if you turn one slug all the way out, and then adjust it in to the 'entry' resonance, and then start with the other slug all the way out and see if you can resonate before
it runs into the other slug.

Too much???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
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> David, KX7C
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>
> _____
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> To: DrakeRadio@yahoogroups.com
> Sent: Friday, April 18, 2014 6:37 AM
> Subject: Re: [DrakeRadio] meter peg
>
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>
> David -
>
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>
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> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> _____
>> From: David Nichols <hamcomm7@...>
>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>> Sent: Thursday, April 17, 2014 6:55 PM
>> Subject: Re: [DrakeRadio] meter peg
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20187. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:41:11 UTC
From: David Nichols
Topic: 20138 Message: 20187

Garey, that sounds interesting I will have to give it a try to see what happens. And by the way, no Im not using the load setup. The consensus seemed to be that it wasnt necessary and it seemed to be another opportunity to screw up. I prefer to learn from other peoples experiences and screw-ups whenever possible. Believe me, Im still stupid enough to have my own screw-up. I had to go to town today but I may get that fan in yet. Then I will play with T1.
David, KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Friday, April 18, 2014 6:26 PM
Subject: Re: [DrakeRadio] meter peg

David -

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Too much???

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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> David, KX7C
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> _____
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, April 18, 2014 6:37 AM
> Subject: Re: [DrakeRadio] meter peg
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> David -
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> You skipped ahead several steps! :-)
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> in the S-Meter bridge. With a 6AQ5A all four tubes are '11 second warm-up' type, allowing the
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> 73, Garey - K4OAH
> Glen Allen, VA
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>> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20188. Re: [DrakeRadio] Replacing meter bulb on T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:45:00 UTC
From: Garey Barrell
Topic: 20173 Message: 20188

Paul -

Two things. One, use a #755 bulb instead of the #47. That way you won't ever have to go through this again, and still have 'real' light bulbs.

Two, the stupid LED thingys don't do well in series with a bulb. Those two bulbs ARE in series
in the A and B Lines.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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rochep@... wrote:
> Got it back together and managed to replace the blue strip. But one thing I noticed, when I use a #47 bulb in the main dial socket, my #47 bulb in the S meter burns bright. But when I put one of the 2BRadioParts blue LED bulbs in the main dial socket, my #47 bulb in the S meter is very weak. Has anyone else noticed this? I do not notice this behavior in my T4XC transmitter, just this T4XB. Strange. But I am going old' school and gonna use a #47 and new blue filter.
>
> paul
>
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20189. Re: [DrakeRadio] Replacing meter bulb on T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:46:03 UTC
From: Garey Barrell
Topic: 20173 Message: 20189

The T-4XC has a 2W resistor in series with each bulb so they can turn the VFO bulbs on and off
in TRANSCEIVE.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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> paul
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20190. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:53:47 UTC
From: Robert Logan
Topic: 20151 Message: 20190

I have a Globe Scout 680 (not 680A) that the mesh on top of the case rattles and shakes when I switch to transmit but I probably wouldn't trade it even for a Sherwooded R4C! It's family way back. Bob NZ5A

Sent from my iPhone

On Apr 18, 2014, at 12:06 PM, Steve Toth <stoth47@...> wrote:

I think it has to do with nostalgia - BTW.... anybody out there have a WRL Globe Chief (gotta love those 807's!) or Globe Champion they want to part with? - (the Chief was my first "good" transmitter after the ARC-5 gear)

-- Steve

"Technically.....the glass is ALWAYS full."

On Fri, 4/18/14, Don Cunningham <donc@...t> wrote:

Subject: Re: [DrakeRadio] New member with a problem.
To: DrakeRadio@yahoogroups.com
Date: Friday, April 18, 2014, 8:41 AM

Garey,
I understand. I might be the same here, if I could
only have one set
out. I am fortunate, and know it, and can have most of
it out. I used
to say all of it, then I went nuts, and now some of it has
to be in the
garage!!!!!!!! Just got to be too much out here in the
"shack" and it's
HUGE.

It's an ADDICTION, but mine has Drake, lots of it, Collins,
Heathkit,
Johnson, Lafayette, Trio, Allied, Knight Kit, and I have
bought a
Central Electronics 20A that hasn't been delivered yet!!!! I
guess I
need treatment, Garey!!!!!!!! I am sure I have
slighted some poor brand
name that I'll see later in the day weeping in the corner,
and I haven't
even mentioned any of the Ten Tec, Elecraft or Japanese
modern wonders
gracing the place. It's a good thing I have a

marvelous, supportive
wife, isn't it??? And, sorry guys, no sisters!!!!!!
73, back into my cave,
Don, WB5HAK
On 4/18/2014 10:29 AM, Garey Barrell wrote:
>
> Don -
>
> My S-Line (75S-3B, 32S-3, 312B-4, 30L-1 & 516F-2)
is in boxes in the
> closet since the move. .
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> The B-Line is on the desk! :-)
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> Don Cunningham wrote:
> > Sorry Garey for the "C" word, but the welcome is a
true one.
> > Chris, Mark, and others can attest to that!!
>
>

This email is free from viruses and malware because avast!
Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

Yahoo Groups Links

DrakeRadio-fullfeatured@yahoogroups.com

[Non-text portions of this message have been removed]

20191. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 01:58:59 UTC
From: Garey Barrell
Topic: 20138 Message: 20191

David -

You should always use the loads. The 'consensus' on the internet ain't always correct.! the design engineers at Drake knew considerably more about these designs than the 'internet experts'. These are 'critically coupled' dual resonators, and if you just peak them you'll have trouble covering all of the larger bands. Look up 'double tuned' circuits in your Handbook
or on line to eliminate the center peak or the 'swayback' effect from improper tuning.

My favorite is the 'improvement' for VTVMs that move the 1M resistor from the probe tip to the
range switch to eliminate the need for a special probe.... Yeah, right.....

73, Garey - K4OAH
Glen Allen, VA

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> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, April 18, 2014 6:26 PM
> Subject: Re: [DrakeRadio] meter peg
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> David -
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> Bottom line, if you turn one slug all the way out, and then adjust it in to the 'entry'
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20192. Re: [DrakeRadio] New member with a problem.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 02:02:58 UTC
From: Robert Logan
Topic: 20151 Message: 20192

I read my email again.

Well....maybe for a late serial number fully Sherwooded R4C with $50 tucked around the S meter....maybe

Sent from my iPhone

On Apr 18, 2014, at 8:53 PM, Robert Logan <bob.logan47@...> wrote:

I have a Globe Scout 680 (not 680A) that the mesh on top of the case rattles and shakes when I switch to transmit but I probably wouldn't trade it even for a Sherwooded R4C! It's family way back. Bob NZ5A

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-- Steve

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To: DrakeRadio@yahoogroups.com
Date: Friday, April 18, 2014, 8:41 AM

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to be in the
garage!!!!!!! Just got to be too much out here in the
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HUGE.

It's an ADDICTION, but mine has Drake, lots of it, Collins,
Heathkit,
Johnson, Lafayette, Trio, Allied, Knight Kit, and I have
bought a
Central Electronics 20A that hasn't been delivered yet!!!! I

guess I
need treatment, Garey!!!!!!!! I am sure I have
slighted some poor brand
name that I'll see later in the day weeping in the corner,
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Don, WB5HAK
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This email is free from viruses and malware because avast!
Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

Yahoo Groups Links

DrakeRadio-fullfeatured@yahoogroups.com

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[Non-text portions of this message have been removed]

20193. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 02:38:08 UTC
From: David Nichols
Topic: 20138 Message: 20193

Ok Garey, I have read it in several places that the load wasnt needed but what you say does make sense. The design team should have known more than anyone what it took to make them work right. I sure dont want to set it up with limitations that cause it to not work as well as it can.
Well how about pulling power from the RV4 plug in for the fan Im installing? Should I just power the fan externally? Im tapping the 12v ac off of pin 7.
David, KX7C

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Friday, April 18, 2014 6:58 PM
Subject: Re: [DrakeRadio] meter peg

David -

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> Sent: Friday, April 18, 2014 6:26 PM
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>> Does T1 peak (dropping off on EITHER side of the peak)? It's been a while since I've been in a
>> TR-4C, but I believe it's a bit broad tuning. Are you using the alignment load as described??
>> Top and bottom adjustment respond similarly? Since it tunes up in transmit normally, the only

>> two tubes that are suspect are V4 and V7.
>>
>> The Calibrator signal is injected by a piece of wire that goes from the Calibrator output to the
>> BAND switch wafer. The wire is NOT connected to a terminal on the switch, rather it is 'woven'
>> through two holes in the phenolic, i.e., brought 'close' to the RF Stage input.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols wrote:
>>> I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
>>> David, KX7C
>>>
>>>
>>>
>>>
>>> _____
>>> From: David Nichols <hamcomm7@yahoo.com>
>>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>>> Sent: Thursday, April 17, 2014 6:55 PM
>>> Subject: Re: [DrakeRadio] meter peg
>>>
>>>
>>>
>>>
>>> OK, I do have a 6AQ5A at V17.
>>>
>>> I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
>>> R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
>>> 6BZ6 is at V5
>>> I used Deox Gold on all of the tube pins.
>>> I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
>>> Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.

>>> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
>>> David, KX7C
>>>
>>>

[Non-text portions of this message have been removed]

20194. Re: [DrakeRadio] MN-2000 Bandswitch Knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 06:44:22 UTC
From: <mike@...>
Topic: 20171 Message: 20194

Tnx Evan, I will give it a try...

73 De Mike
VE3YF

[Non-text portions of this message have been removed]

20195. TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 09:16:32 UTC
From: Dieter Horst
Topic: 20195 Message: 20195

Gentlemen,
my nearly finished project TR7 came without cabinet screws. The screws for the bottom plate were missing, too.

I am reluctant to convert everything to metric as I want to keep the radio orginal.
Can anyone tell me which screws were used? I am not so familiar with the American threads.

Sourcing them here in Germany is another story. But I am sure I will not be left alone there either.

73s, Dieter DL5RDO

20196. 4 Line meter and VFO lighting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 13:23:01 UTC
From: <dj_coffman@...>
Topic: 20196 Message: 20196

I absolutely detest the blue LEDs for Drake lighting. Its a personal OCD thing, the color just does not come close to what I like; this is not a bash on those that do. Its also a big OCD thing when I see people reverse the blue and white filter material, UGH!

The question I have is has anyone attempted to make any type of light reflector to get the lighting to disperse more evenly on the VFO or meter lighting. All of my 4 line stuff has a "Hot Spot" where the bulb sits and then the lighting gets lighter on the VFO window as you move away from that spot. As expected, there is quite a bit of "Wasted" light that lights up the inside of the rig. I wondered if someone had improved the factory reflector the bulb socket mounts to.

Thanks,

Doug - N9XTF

[Non-text portions of this message have been removed]

20197. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 13:30:18 UTC
From: Garey Barrell
Topic: 20138 Message: 20197

David -

As long as it isn't the fan for your air conditioner, it's fine! :-) The SMALL fan needed doesn't draw any current relative to the filament supply capability. If you can hear the fan
running, it's probably too powerful. All you need is a gentle breeze blowing air AWAY from the
PA cage. If you think of one of the old-time cardboard hand fans they used to hand out in churches before air conditioning, that's about all the air you need. Most use fans running on
about half their rated voltage. 24 VAC 'box' fans go for next to nothing at hamfests, but they
run great on 12 VAC for our purposes. Or a 12 VDC fan on about 6-7 VDC is good. Many cases you
can get by with just a diode in series with the filament voltage, no 'filter cap'. Experiment.
You'll see how little air movement it takes to reduce the cabinet top temperature from too hot
to rest your hand on, to room temperature.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok Garey, I have read it in several places that the load wasnt needed but what you say does make sense. The design team should have known more than anyone what it took to make them work right. I sure dont want to set it up with limitations that cause it to not work as well as it can.
> Well how about pulling power from the RV4 plug in for the fan Im installing? Should I just power the fan externally? Im tapping the 12v ac off of pin 7.
> David, KX7C
>
>
>
>
> _____
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, April 18, 2014 6:58 PM
> Subject: Re: [DrakeRadio] meter peg
>
>

>
>
> David -
>
> You should always use the loads. The 'consensus' on the internet ain't always correct.! the
> design engineers at Drake knew considerably more about these designs than the 'internet
> experts'. These are 'critically coupled' dual resonators, and if you just peak them you'll
> have trouble covering all of the larger bands. Look up 'double tuned' circuits in your Handbook
> or on line to eliminate the center peak or the 'swayback' effect from improper tuning.
>
> My favorite is the 'improvement' for VTVMs that move the 1M resistor from the probe tip to the
> range switch to eliminate the need for a special probe.... Yeah, right.....
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols wrote:
>> Garey, that sounds interesting I will have to give it a try to see what happens. And by the way, no Im not using the load setup. The consensus seemed to be that it wasnt necessary and it seemed to be another opportunity to screw up. I prefer to learn from other peoples experiences and screw-ups whenever possible. Believe me, Im still stupid enough to have my own screw-up. I had to go to town today but I may get that fan in yet. Then I will play with T1.
>> David, KX7C
>>
>>
>>
>> _____
>> From: Garey Barrell <k4oah@...>
>> To: DrakeRadio@yahoogroups.com
>> Sent: Friday, April 18, 2014 6:26 PM
>> Subject: Re: [DrakeRadio] meter peg
>>
>>
>>
>>
>> David -
>>
>> On T1..... One of the ways you can get into trouble with these double tuned transformers is if
>> one slug is in too far, i.e., on 'outside' of resonance, and it bumps into the other slug. You

>> might try backing that bottom slug all the way out and then go back in watching for the peak.
>>
>> The converse is also true. If the top slug is in too far and you're on the bottom side, same
>> problem.
>>
>> Sounds confusing even to me!! If you have a coil, and the slug starts from way OUT, as you
>> screw it further in, as soon as enough core material is within the field of the coil to hit
>> resonance, you're good. BUT, if you keep turning there will be another resonant point as the
>> core goes through the coil and starts out the other side. If it's on that second 'exiting'
>> resonance, it may be far enough down to prevent the bottom coil from getting far enough into its
>> coil to resonate.
>>
>> Bottom line, if you turn one slug all the way out, and then adjust it in to the 'entry'
>> resonance, and then start with the other slug all the way out and see if you can resonate before
>> it runs into the other slug.
>>
>> Too much???
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols wrote:
>>> OK, Since the Deox Gold isnt really a cleaner I used the red stuff this time and redone the the gold on all of the tubes.
>>> I have changed out V4 and V7, have not powered up to check anything. I am working on a fan installation. I had wanted to get it to 100% operation before I went for any changes but I am impatient I suppose. Once since I put the new 6AQ5A in i did see the meter go to the left. Im still thinking about that issue. For the most part I am working things out and with advise from you and the group Ill either put the flames out crying on it or fix it. hi hi
>>> During T1 adjustment, the top adjusting screw did all the work. I didnt get any response from the bottom adjustment at all. It also has a little tight spot that doesnt feel right to me. Most of the adjustments in this rig are smooth and the bottom of T1 is not. I may have found one, not sure yet, waiting on reply for that. In any event, I will pull T1 and see what it looks like.
>>> By the way, I pulled C130 apart. I was not having a good time finding a sweet spot with the SSB balance, I cleaned it up and put it back in. First time doing one of those. Installed a new 6GX6 and I heard a spot that made me happy. The sound level differential

between USB AND LSB just played with my head.
>>> On the calibrator and the wire to the band switch. I thought that might be why that wire was there. I ran into a wire much like that in an old Hallicrafters S38A if i remember right. Learned not to monkey dead end wires in tube rigs.
>>> David, KX7C
>>>
>>>
>>>
>>>
>>> _____
>>> From: Garey Barrell <k4oah@...>
>>> To: DrakeRadio@yahoogroups.com
>>> Sent: Friday, April 18, 2014 6:37 AM
>>> Subject: Re: [DrakeRadio] meter peg
>>>
>>>
>>>
>>>
>>> David -
>>>
>>> You skipped ahead several steps! :-)
>>>
>>> The reason is that the stage current of V4, 11 and 15 is compared with the stage current of V17
>>> in the S-Meter bridge. With a 6AQ5A all four tubes are '11 second warm-up' type, allowing the
>>> currents to come up pretty close together. If the 6AQ5A comes up slowly, the meter deflects
>>> negative. I'm wondering if the DeoxIT suggestion might work, just a little corrosion on the
>>> filament pins that would clear up? If you put the OLD tube back in, is it ok?
>>>
>>> Does T1 peak (dropping off on EITHER side of the peak)? It's been a while since I've been in a
>>> TR-4C, but I believe it's a bit broad tuning. Are you using the alignment load as described??
>>> Top and bottom adjustment respond similarly? Since it tunes up in transmit normally, the only
>>> two tubes that are suspect are V4 and V7.
>>>
>>> The Calibrator signal is injected by a piece of wire that goes from the Calibrator output to the
>>> BAND switch wafer. The wire is NOT connected to a terminal on the switch, rather it is 'woven'
>>> through two holes in the phenolic, i.e., brought 'close' to the RF Stage input.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
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>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>>> <www.k4oah.com>
>>>
>>> David Nichols wrote:
>>>> I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
>>>> David, KX7C
>>>>
>>>>
>>>>
>>>>
>>>> _____
>>>> From: David Nichols <hamcomm7@...>
>>>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>>>> Sent: Thursday, April 17, 2014 6:55 PM
>>>> Subject: Re: [DrakeRadio] meter peg
>>>>
>>>>
>>>>
>>>>
>>>> OK, I do have a 6AQ5A at V17.
>>>>
>>>> I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
>>>> R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
>>>> 6BZ6 is at V5
>>>> I used Deox Gold on all of the tube pins.
>>>> I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
>>>> Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.
>>>> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
>>>> David, KX7C
>>>>
>>>>

20198. Re: [DrakeRadio] 4 Line meter and VFO lighting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 13:46:09 UTC
From: Garey Barrell
Topic: 20196 Message: 20198

Doug -

I've found it helps a lot to repaint the reflector a nice bright white. They tend to yellow with age, as do the white diffusers. Gets you back to the truer 'blue-touch-o-green' instead of
the blue-green resulting from those yellowish tints. I've never tried it, but I wonder what polishing the bare aluminum reflector with 'Nevr-Dull' would do?? Also, the #755 bulb in place
of the #47, aside from lasting 'forever', reduces the 'hot-spot' a bit...

You could also try a 'light shield' like was used on the old wood cabinet radios. Spring steel,
kinda like a tube shield that doesn't go 'all the way around', leaving a wide 'slit' on the 'back side' of the bulb. They used it to focus the light on the dial area, here it would be rotated so the slit was facing the reflector (polished?) and blocking the direct glare...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dj_coffman@... wrote:
> I absolutely detest the blue LEDs for Drake lighting. Its a personal OCD thing, the color just does not come close to what I like; this is not a bash on those that do. Its also a big OCD thing when I see people reverse the blue and white filter material, UGH!
>
>
> The question I have is has anyone attempted to make any type of light reflector to get the lighting to disperse more evenly on the VFO or meter lighting. All of my 4 line stuff has a "Hot Spot" where the bulb sits and then the lighting gets lighter on the VFO window as you move away from that spot. As expected, there is quite a bit of "Wasted" light that lights up the inside of the rig. I wondered if someone had improved the factory reflector the bulb socket mounts to.
>
>

20199. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 14:34:22 UTC
From: Jim Shorney
Topic: 20195 Message: 20199

The screws for the top cover are 4-40 machine screws. The bottom plate is held by what I believe to be #4 Type B sheet metal screws. I was just researching that last night, as I lost a couple of the bottom screws. I can get you the length later, as I am on my way out for the morning and don't have time to measure them right now. Both are round head Phillips type.

73

-Jim
NU0C

On Sat, 19 Apr 2014 11:16:32 +0200, Dieter Horst wrote:

>Gentlemen,
>my nearly finished project TR7 came without cabinet screws. The screws
>for the bottom plate were missing, too.
>
>I am reluctant to convert everything to metric as I want to keep the
>radio orginal.
>Can anyone tell me which screws were used? I am not so familiar with the
>American threads.
>
>Sourcing them here in Germany is another story. But I am sure I will not
>be left alone there either.
>
>73s, Dieter DL5RDO
>
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>
>Yahoo Groups Links
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"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20200. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 15:09:13 UTC
From: VE3AX/7
Topic: 20172 Message: 20200

Lane:

Congratulations! That looked like a nice example of the SPR-4.

No matter how much use it's had, it would probably benefit from a thorough cleaning of the PTO gear train, lead screw and front bearing race, if not already done by the PO. Read all you can in the reflector archives first, and keep a digital camera handy as you disassemble. You will be glad you took pictures when you go to re-assemble! I've had three SPR-4 PTO's and a T-4XC PTO apart recently and not one was exactly the same mechanically. Drake used slightly different arrangements of plastic spacers in the dial trains throughout the whole 4 line; even the later C-line like dials there were changes. Pay close attention to where the little fibre washers go. Handle with care as they break easily.

I would pick up a few B-5030 transistors on E-Bay and keep on hand. There is one used in the power supply and two on the audio board, at least through mid-range SPR-4's. I have not found any other sources other than John Kriner (TR7dude). They are a weird little device and I have had to replace both the PS device in one radio and the two on the audio board in another. You may want to check your rig as it is a very late one, and I've been told Drake may have changed the audio board to one using EP-487's like the DSR/MSR series. I'd be interested to know if that is the case. The B-5030 BASE is the longer lead – that is not clear in the manual.

As Steve has said, check that power cord, especially right at the molded 5 pin plug. Many will be intermittent there. If it is, there is a pretty easy fix that doesn't deface the radio at all. Involves pulling the 5 pin socket, mounting a small aluminum plate on the inside of the chassis in the same mounting holes, and putting a strain relief for a standard 18 gauge AC line cord there. I have detailed pics of that mod and dimensions of the plate should you need it. And it's entirely reversible should you ever happen across an original line cord in good shape.

Changing electrolytic caps in the SPR-4 may not be as much a concern as, say, the bias cap in the AC-4 power supply, but there are 3 on the B-5030 style audio board and some in the PS section I'd be wary of. That said, I have not done any in my SPR-4 or RR-1's yet here.

73
Peter
VE3AX/7

From: lane denune
Sent: Friday, April 18, 2014 12:36 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] The "New" SPR-4

Hello Drake Pros...

Found a FB SPR4 on the bay and is to be delivered shortly. It has the NB5 & 100kc calibrator with a full compliment of crystals.

What can the Drake Gurus tell me about the SPR4 receivers? Hints, Kinks, Tips and experience? Marked with Serial #6164.

Please and Thank You....lane in Columbus, Ohio. 73 n8aft SK ..

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20201. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 15:29:01 UTC
From: Don Cunningham
Topic: 20195 Message: 20201

Jim,
I think you will find that on a true original TR7, the outer case screws are actually a standard slotted head screw, not a phillips head. Many have been changed over the years, but the true original I believe were slotted. I have several one owner rigs, the latest one I haven't picked up yet, but I believe it has never been violated and I will double check that one to be sure and tell you if I am wrong. The last one I have in sight I got from an estate, and the owner was so anal, that I have documentation on EVERYTHING from it's "birth" in the 1980's to the last he did to it, including all the old parts he replaced taped to the documentation!!! It is outfitted as I described.

It really doesn't matter to me, as I don't stay QUITE that original, but Dieter did ask for originality, so I thought I'd risk sticking that in.
73 all,
Don, WB5HAK
On 4/19/2014 9:34 AM, Jim Shorney wrote:
>
>
> The screws for the top cover are 4-40 machine screws. The bottom plate
> is held
> by what I believe to be #4 Type B sheet metal screws. I was just
> researching
> that last night, as I lost a couple of the bottom screws. I can get
> you the
> length later, as I am on my way out for the morning and don't have time to
> measure them right now. Both are round head Phillips type.
>
> 73
>
> -Jim
> NU0C
>
> On Sat, 19 Apr 2014 11:16:32 +0200, Dieter Horst wrote:
>
> >Gentlemen,
> >my nearly finished project TR7 came without cabinet screws. The screws
> >for the bottom plate were missing, too.
> >
> >I am reluctant to convert everything to metric as I want to keep the
> >radio orginal.
> >Can anyone tell me which screws were used? I am not so familiar with the
> >American threads.
> >
> >Sourcing them here in Germany is another story. But I am sure I will not

> >be left alone there either.
> >
> >73s, Dieter DL5RDO
> >
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> >Yahoo Groups Links
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>
> "A deep understanding of reality is exactly the same thing as
> laziness." - Wally, "Dilbert"
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>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20202. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 15:34:02 UTC
From: VE3AX/7
Topic: 20195 Message: 20202

Dieter/Jim:

I was pretty sure there were some pan head 4-40 common slot screws there somewhere. So I went to the shack and checked.

TR-7 and TR-5 - both cabinet screws and bottom plate screws are as Jim described - cabinet screws are 4-40 round head Phillips while the bottom plate uses #4 machine screws with the same head.

TR-7A - Cabinet screws are as above - 4-40 machine screws with round head Phillips. But on mine, the bottom plate has #6 machine screws with pan head common slot screws. I suspect they are not original. Oh, woe is me!

MN-2700 - as the TR-7 and TR-5 above.

ALL other accessories I checked; WH-7/CS-7/CW-75/SP-75/P-75/MS-7 - use pan head common slot 4-40 machine screws.

I did not check the amps or the smaller tuners but can if someone really needs that I can.

Dieter - if you can't find them over there let me know and I'll send you some.

73
Peter
VE3AX/7

-----Original Message-----
From: Dieter Horst
Sent: Saturday, April 19, 2014 2:16 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] TR7 Screws

Gentlemen,
my nearly finished project TR7 came without cabinet screws. The screws for the bottom plate were missing, too.

I am reluctant to convert everything to metric as I want to keep the radio orginal.
Can anyone tell me which screws were used? I am not so familiar with the American threads.

Sourcing them here in Germany is another story. But I am sure I will not be left alone there either.

73s, Dieter DL5RDO

Yahoo Groups Links

20203. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 15:39:14 UTC
From: Joe - W7RKN
Topic: 20195 Message: 20203

Don..I'm glad you said that! I don't know about the later Drake boxes, as I don't have any.

On all my "B" equipment, the screws are all slotted....I have replaced them with Phillips screws (Black) (In stock at the local F&E Fasteners, here in Reno...bought a box of 500..Only $5.00 or so!) and have saved all the slotted screws..not original, I know, but sure makes pulling covers easier (And faster!)

BTW...What was the final selling price of that 'NIB' TR7 that was on eBay? Anyone know?

Joe - W7RKN

----- Original Message -----
From: "Don Cunningham" <donc@...>
Subject: Re: [DrakeRadio] TR7 Screws

> Jim,
> I think you will find that on a true original TR7, the outer case screws
> are actually a standard slotted head screw, not a phillips head.

20204. strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 16:44:47 UTC
From: <prosolar@...>
Topic: 20204 Message: 20204

Well guys,

I fixed this thing a few years back and it's been sitting on the shelf. I decided to fire it up, and whoa, there are issues.

the only mode it works on is AM. Using the calibrator, i can hear a good solid s-9+ signal on 40 meters

However, when I switch to USB or LSB, there is zip audio. A slight bit, but no signal. The s-meter still shows the calibrator.

Seems like the product detector is not working.

yes, I have carrier as the oscillator is singing with more than ample level.

so, before I spend hours trying to track this problem down, any one been down this road before?

Just popped the bottom cover so I haven't got too deep into it yet.

and of course I've wiggled the tubes, all are lit and every thing seems to work but only in AM mode

mike, wb8vge

[Non-text portions of this message have been removed]

20205. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:00:10 UTC
From: Garey Barrell
Topic: 20204 Message: 20205

Mike -

Early or Late??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... wrote:
> Well guys,
>
> I fixed this thing a few years back and it's been sitting on the shelf. I decided to fire it up, and whoa, there are issues.
>
>
> the only mode it works on is AM. Using the calibrator, i can hear a good solid s-9+ signal on 40 meters
>
>
> However, when I switch to USB or LSB, there is zip audio. A slight bit, but no signal. The s-meter still shows the calibrator.
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> Seems like the product detector is not working.
>
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> yes, I have carrier as the oscillator is singing with more than ample level.
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> Just popped the bottom cover so I haven't got too deep into it yet.
>
>
> and of course I've wiggled the tubes, all are lit and every thing seems to work but only in AM mode
>
>
> mike, wb8vge
>
>

20206. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:18:29 UTC
From: Mike Bryce
Topic: 20204 Message: 20206

Just came upstairs.. .somewhat dismayed

it's the 11 tube version and the schematic I have doesn't match

seems the BFO is a small pcb with two transistors mounted.

Using my scope, I found no oscillation on the coil leads when the switch is
in SSB mode

mike

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20207. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:34:29 UTC
From: Garey Barrell
Topic: 20204 Message: 20207

Check the DC voltage on either side of the 680 ohm resistor on top edge of the board just behind
the AF GAIN.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Just came upstairs.. .somewhat dismayed
>
> it's the 11 tube version and the schematic I have doesn't match
>
> seems the BFO is a small pcb with two transistors mounted.
>
> Using my scope, I found no oscillation on the coil leads when the switch is
> in SSB mode
>
> mike
>
>

20208. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:35:23 UTC
From: Garey Barrell
Topic: 20204 Message: 20208

Give me the s/n and I'll send you the correct schematic from my CD.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Just came upstairs.. .somewhat dismayed
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>
> Using my scope, I found no oscillation on the coil leads when the switch is
> in SSB mode
>
> mike
>
>

20209. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:36:41 UTC
From: Garey Barrell
Topic: 20204 Message: 20209

Mike -

Sorry, I meant the 10k resistor along the top edge.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Just came upstairs.. .somewhat dismayed
>
> it's the 11 tube version and the schematic I have doesn't match
>
> seems the BFO is a small pcb with two transistors mounted.
>
> Using my scope, I found no oscillation on the coil leads when the switch is
> in SSB mode
>
> mike
>
>

20210. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:40:53 UTC
From: Mike Bryce
Topic: 20204 Message: 20210

Gary

140 v one side 17.5 other side

Serial number
5385G

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20211. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:51:19 UTC
From: Garey Barrell
Topic: 20204 Message: 20211

OK. That's right before the LAST version at 5400. It should be the 4054 version, but I've included MY "last" version which includes a few previously undocumented changes.

Check voltages on either side of the 680 1W on that same board.

Have you exercised the AVC switch????

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Gary
>
> 140 v one side 17.5 other side
>
> Serial number
> 5385G
>
>
>
>

[Non-text portions of this message have been removed]

20212. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 17:58:24 UTC
From: Mike Bryce
Topic: 20204 Message: 20212

Yes, I have 10v on the other side of 680 ohm resistor. When I go from a.m. mode to sideband mode I have 11 volts going to the BFO board and the collector of transistor Q6 which I think is right behind the large .47 mfd cap.

Mike

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20213. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 18:08:09 UTC
From: Garey Barrell
Topic: 20204 Message: 20213

Q5 and Q6 are over on the board next to T11, NOT the two transistors on the board we've been
looking at!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Yes, I have 10v on the other side of 680 ohm resistor. When I go from a.m.
> mode to sideband mode I have 11 volts going to the BFO board and the
> collector of transistor Q6 which I think is right behind the large .47 mfd
> cap.
>
> Mike
>
>
>
>

20214. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 18:33:25 UTC
From: geoffrey mendelson
Topic: 20172 Message: 20214

On 4/18/2014 10:36 PM, lane denune wrote:
>
> Hello Drake Pros...
>
> Found a FB SPR4 on the bay and is to be delivered shortly. It has the
> NB5 & 100kc calibrator with a full compliment of crystals.
> What can the Drake Gurus tell me about the SPR4 receivers? Hints,
> Kinks, Tips and experience? Marked with Serial #6164.
>

There was a lot of discussion on this group about SPR-4's and their PTO's and dial mechanisms.

What I would do first is to see if the dial moves freely or not (do not force it, it is not "just stiff" if it does not), and then open the unit to determine which PTO and dial assembly it has.

I would also look at the blue lenses to see how blue they are and which light bulbs work. There are three options, one is to replace them all with #47 bulbs. The second is to replace them with longer lasting bulbs (which I think are slightly redder) and the third is to replace them with LEDs. There are lots of places that sell drop in 6v bayonet light bulbs with LEDs in them. I got mine from superbrightleds.com, but there is also cointaker and the 2b parts has them now too. My advice to you is unless you really want to be as close to factory fresh as possible, replace the S meter and tuning dial bulbs with blue LEDs and the center bulb with a long lasting incandescent one. You may also get an unusual, but useful look replacing the center one with a red LED, I don't know.

Don't expect it to be what it is not. It is really designed for casual listening to shortwave broadcasts in the day the band was not crowded. It does receive USB/LSB and CW, but it is not as sharp as some people would like. Don't expect it to be a modern receiver with narrow filters or DSP and you will be fine. That said, with a good speaker or headphones, it makes a great receiver for listening to moderately strong shortwave broadcasts.

The factory unit did NOT come with the ham bands, and while it works on the ham bands with the right crystals, I don't recommend buying them for it if they are not already in it.

In contrast to Peter, I do NOT recommend doing anything to the power supply, or power cord. If they need work or replacement, I would run a pair of wires from the 12 volt input out one of the spare holes in the rear of the radio and power it from a 12v power supply. The radio itself uses very little power, the rating doubles with the lights on.

If you plan to use headphones, unless you have 1960's vintage headphones, make an adaptor cable with a 1/4" inch mono plug for the radio, and mini socket for your headphones. Put a resistor (40-60 Ohms) in series with the "hot lead".

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20215. R-4C Inrad GUF-1 8KHz first IF

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 18:35:10 UTC
From: <dj_coffman@...>
Topic: 20215 Message: 20215

Currently thinking about replacing the first IF with the 8KHz Inrad GUF-1, has anyone done this modification and done an A/B comparison to prove or disprove its worthiness?

My hope is that I do not start a crud storm but want to find out if it is worthy modification.

Doug - N9XTF

[Non-text portions of this message have been removed]

20216. Re: [DrakeRadio] R-4C Inrad GUF-1 8KHz first IF

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 18:50:31 UTC
From: Garey Barrell
Topic: 20215 Message: 20216

Doug -

The GUF-1 is the same 'bandwidth' (8 kHz) as the stock 'roofing filter'. BUT it has considerably steeper skirts and greater stop-band attenuation. It 'probably' won't affect the
NB, and was pretty valuable in it's time. With the (comparatively) wide-open spaces of today's
bands, (except on contest days,) I'd question its' value unless you are a contester.

As far as 'Sherwood Testing' goes, it will improve the 'Dynamic Range Wide Spaced' number considerably, but won't make a bit of difference in the 'Dynamic Range Narrow Spaced" number.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dj_coffman@... wrote:
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>
>
> My hope is that I do not start a crud storm but want to find out if it is worthy modification.
>
>
> Doug - N9XTF
>
>

20217. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:21:49 UTC
From: Jim Shorney
Topic: 20195 Message: 20217

Interesting. My single-owner R-7A has Philips head screws, and I am sure that the original owner was never inside it. Both of my TR-7s in the 3xxx serial range) have Philips, as well as the other TR-7s I have seen. My SP-75 has the Philips sheet metal screws and AC-4 "feet". As does the CS-7 indoor box that I have. Counted in is an MS-7 with Philips machine screws that I believe also was single-owner. However, the RV-7 that I use has slotted screws. I'm not going to take the other RV-7 out of the box to look at it. So it appears that Philips head are also "true" Drake.

To complete my earlier answer, both screws measure at 1/4 inch in length. The sheet metal screws appear to be "Type B" (blunt) screws, but I have not confirmed this by physical comparison to known samples as of yet. Pointy screws would probably work OK, but there may be a slight difference in the pitch of the thread.

73

-Jim
NU0C

On Sat, 19 Apr 2014 10:29:01 -0500, Don Cunningham wrote:

>Jim,
>I think you will find that on a true original TR7, the outer case screws
>are actually a standard slotted head screw, not a phillips head. Many
>have been changed over the years, but the true original I believe were
>slotted. I have several one owner rigs, the latest one I haven't picked
>up yet, but I believe it has never been violated and I will double check
>that one to be sure and tell you if I am wrong. The last one I have in
>sight I got from an estate, and the owner was so anal, that I have
>documentation on EVERYTHING from it's "birth" in the 1980's to the last
>he did to it, including all the old parts he replaced taped to the
>documentation!!! It is outfitted as I described.
>
>It really doesn't matter to me, as I don't stay QUITE that original, but
>Dieter did ask for originality, so I thought I'd risk sticking that in.
>73 all,
>Don, WB5HAK
>On 4/19/2014 9:34 AM, Jim Shorney wrote:
>>
>>
>> The screws for the top cover are 4-40 machine screws. The bottom plate
>> is held
>> by what I believe to be #4 Type B sheet metal screws. I was just
>> researching
>> that last night, as I lost a couple of the bottom screws. I can get

>> you the
>> length later, as I am on my way out for the morning and don't have time to
>> measure them right now. Both are round head Phillips type.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Sat, 19 Apr 2014 11:16:32 +0200, Dieter Horst wrote:
>>
>> >Gentlemen,
>> >my nearly finished project TR7 came without cabinet screws. The screws
>> >for the bottom plate were missing, too.
>> >
>> >I am reluctant to convert everything to metric as I want to keep the
>> >radio orginal.
>> >Can anyone tell me which screws were used? I am not so familiar with the
>> >American threads.
>> >
>> >Sourcing them here in Germany is another story. But I am sure I will not
>> >be left alone there either.
>> >
>> >73s, Dieter DL5RDO
>> >
>> >
>> >
>> >
>> >------------------------------------
>> >
>> >Yahoo Groups Links
>> >
>> >
>> >
>>
>> --
>>
>> "A deep understanding of reality is exactly the same thing as
>> laziness." - Wally, "Dilbert"
>>
>>
>
>
>
>---
>This email is free from viruses and malware because avast! Antivirus protection is active.
>http://www.avast.com
>
>
>[Non-text portions of this message have been removed]

>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20218. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:23:15 UTC
From: Jim Shorney
Topic: 20195 Message: 20218

On Sat, 19 Apr 2014 08:34:02 -0700, VE3AX/7 wrote:

>MN-2700 - as the TR-7 and TR-5 above.

Dang, I forgot to look at my MN-2700 and L-7. I must have too much stuff.

(No, you can't have any of it).

73

-Jim
NU0C

--

"Good men don□t need rules. Today is not the day to find out why I have so many." - Doctor Who

20219. RARSFest

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:25:14 UTC
From: Steve Wedge
Topic: 20219 Message: 20219

Saw a few Drake sets at RARSFest today. W8UQ had a decent TR-3/RV-3/AC3 combo. I was tempted but have to get rid of some TR-3's and TR-4's before I take any more on.

Another guy had a decent 2-A. I shoulda pounced on it but I didn't. It was in decent shape.

Another guy had a 2-B full of crystals, decent chassis, with a 2-BQ and a 2-NT. Tried to get a deal and probably would have paid asking except that the 2-B and 2-BQ had "replacement" knobs on them. I thought about how long it would take me to find original knobs and decided to pass.

I did buy an SPR-4 for $125. It was on, not making smoke but could not get so much as a scratch out of the speaker. Told the seller I had no way of telling if this was just a small problem or a lightning hit, so he accepted my offer. Got it home and couldn't get anything out of it for quite a while, until I started twisting the chassis with the covers off. Looks like I'll be going through the screw-tightening ritual. The set is now working and I'm a happy Drake owner

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

20220. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:33:19 UTC
From: Garey Barrell
Topic: 20172 Message: 20220

Be very careful with the LED 'bulbs' in the Drake 4-Line radios.

The 'drop-in' replacements ONLY drop-in when the socket is wired directly to a supply voltage.

SOME Drake radios (A and B-Lines) have the dial and meter bulbs in series across 12 VAC. The
LEDs will 'probably' work ok, unless you put a real bulb in one socket and an LED in the other.

Some other radios (T-4XC) have each bulb in series with a big resistor to drop the voltage. Obviously the LEDs draw much less current, and so will see close to 12 VAC. Not good if it's
rated for 6 VAC!

Others (TR-4) have a pot in series with one or two bulbs to 'dim' the panel lamps. Obviously
it's not going to do much for the LED except apply 12 VAC, and the dim will not work.

Still others (SPR-4) have a fixed resistor in series with one bulb and two other bulbs in series. See above!

That's all I can think of off hand. All in all, the #755 bulb is a much better option, and will likely last the life of the radio(s).

Ya'll be careful out there!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20221. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:36:18 UTC
From: Garey Barrell
Topic: 20195 Message: 20221

Drake probably ran into the same problem we have today. Just try and find a slotted head screw
of any type in your average hardware store. The specialty places have them, but they have to
'go look' as 'they haven't seen any for years'!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Jim Shorney wrote:
> Interesting. My single-owner R-7A has Philips head screws, and I am sure that
> the original owner was never inside it. Both of my TR-7s in the 3xxx serial
> range) have Philips, as well as the other TR-7s I have seen. My SP-75 has the
> Philips sheet metal screws and AC-4 "feet". As does the CS-7 indoor box that I
> have. Counted in is an MS-7 with Philips machine screws that I believe also was
> single-owner. However, the RV-7 that I use has slotted screws. I'm not going to
> take the other RV-7 out of the box to look at it. So it appears that Philips
> head are also "true" Drake.
>
> To complete my earlier answer, both screws measure at 1/4 inch in length. The
> sheet metal screws appear to be "Type B" (blunt) screws, but I have not
> confirmed this by physical comparison to known samples as of yet. Pointy screws
> would probably work OK, but there may be a slight difference in the pitch of
> the thread.
>
> 73
>
> -Jim
> NU0C
>
>
> On Sat, 19 Apr 2014 10:29:01 -0500, Don Cunningham wrote:
>
>> Jim,
>> I think you will find that on a true original TR7, the outer case screws
>> are actually a standard slotted head screw, not a phillips head. Many
>> have been changed over the years, but the true original I believe were
>> slotted. I have several one owner rigs, the latest one I haven't picked
>> up yet, but I believe it has never been violated and I will double check
>> that one to be sure and tell you if I am wrong. The last one I have in
>> sight I got from an estate, and the owner was so anal, that I have
>> documentation on EVERYTHING from it's "birth" in the 1980's to the last

>> he did to it, including all the old parts he replaced taped to the
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>>>> American threads.
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>>>> Sourcing them here in Germany is another story. But I am sure I will not
>>>> be left alone there either.
>>>>
>>>> 73s, Dieter DL5RDO
>>>>
>>>>
>>>>

20222. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:57:52 UTC
From: Jim Shorney
Topic: 20195 Message: 20222

OK, the MN-2700 and L-7 both appear to have slotted machine screws and Philips sheet metal screws.

So there. :P

73

-Jim
NU0C

On Sat, 19 Apr 2014 14:23:15 -0500, Jim Shorney wrote:

>On Sat, 19 Apr 2014 08:34:02 -0700, VE3AX/7 wrote:
>
>>MN-2700 - as the TR-7 and TR-5 above.
>
>
>Dang, I forgot to look at my MN-2700 and L-7. I must have too much stuff.
>
>(No, you can't have any of it).
>
>73
>
>-Jim
>NU0C
>
>--
>
>"Good men don□t need rules. Today is not the day to find out why I have so many." - Doctor Who
>
>
>

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20223. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 19:59:47 UTC
From: Jim Shorney
Topic: 20195 Message: 20223

Or, perhaps, Philips screws make for speedier assembly.

73

-Jim
NU0C

On Sat, 19 Apr 2014 15:36:18 -0400, Garey Barrell wrote:

>Drake probably ran into the same problem we have today. Just try and find a slotted head screw
>of any type in your average hardware store. The specialty places have them, but they have to
>'go look' as 'they haven't seen any for years'!!
>
>73, Garey - K4OAH
>Glen Allen, VA

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20224. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 20:12:53 UTC
From: Don Cunningham
Topic: 20195 Message: 20224

Well, from the preponderance of replies, disregard mine. The four or five I have are apparently the strange ones here. I just never learn to stay in my cave and not post, maybe I will some day if I live long enough. Back in the corner.
73,
Don, WB5HAK
On 4/19/2014 2:36 PM, Garey Barrell wrote:
>
> Drake probably ran into the same problem we have today. Just try and
> find a slotted head screw
> of any type in your average hardware store. The specialty places have
> them, but they have to
> 'go look' as 'they haven't seen any for years'!!
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> Glen Allen, VA
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> >
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> pitch of

> > the thread.
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> > 73
> >
> > -Jim
> > NU0C
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> >
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> >> documentation!!! It is outfitted as I described.
> >>
> >> It really doesn't matter to me, as I don't stay QUITE that
> original, but
> >> Dieter did ask for originality, so I thought I'd risk sticking that in.
> >> 73 all,
> >> Don, WB5HAK
> >> On 4/19/2014 9:34 AM, Jim Shorney wrote:
> >>>
> >>> The screws for the top cover are 4-40 machine screws. The bottom plate
> >>> is held
> >>> by what I believe to be #4 Type B sheet metal screws. I was just
> >>> researching
> >>> that last night, as I lost a couple of the bottom screws. I can get
> >>> you the
> >>> length later, as I am on my way out for the morning and don't have
> time to
> >>> measure them right now. Both are round head Phillips type.
> >>>
> >>> 73
> >>>
> >>> -Jim
> >>> NU0C
> >>>
> >>> On Sat, 19 Apr 2014 11:16:32 +0200, Dieter Horst wrote:
> >>>
> >>>> Gentlemen,
> >>>> my nearly finished project TR7 came without cabinet screws. The

> screws
> >>>> for the bottom plate were missing, too.
> >>>>
> >>>> I am reluctant to convert everything to metric as I want to keep the
> >>>> radio orginal.
> >>>> Can anyone tell me which screws were used? I am not so familiar
> with the
> >>>> American threads.
> >>>>
> >>>> Sourcing them here in Germany is another story. But I am sure I
> will not
> >>>> be left alone there either.
> >>>>
> >>>> 73s, Dieter DL5RDO
> >>>>
> >>>>
> >>>>
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20225. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 20:23:00 UTC
From: Garey Barrell
Topic: 20195 Message: 20225

Hey! If we all had to be right to post here, it'd be AWWWWWWFUL quiet!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> Well, from the preponderance of replies, disregard mine. The four or
> five I have are apparently the strange ones here. I just never learn to
> stay in my cave and not post, maybe I will some day if I live long
> enough. Back in the corner.
> 73,
> Don, WB5HAK
>

20226. AW: Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 20:23:33 UTC
From: Dieter Horst
Topic: 20226 Message: 20226

Guys, you are great. It is so much fun reading all your replies.

The sheet metal screws may be difficult to get here. But some local ones may work.

The 4-40s should be available here,at least I found an online shop that seems to have them.

I am not too mad about slotted or phillips. Just did not want to tap a new metric thread as this somehow 'hurts'.

TNX and 73s

Dieter DL5RDO

-------- Ursprüngliche Nachricht --------
Von: Jim Shorney <jshorney@...>
Datum: 19.04.2014 21:59 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: Re: [DrakeRadio] TR7 Screws

Or, perhaps, Philips screws make for speedier assembly.

73

-Jim
NU0C

On Sat, 19 Apr 2014 15:36:18 -0400, Garey Barrell wrote:

>Drake probably ran into the same problem we have today. Just try and find a slotted head screw
>of any type in your average hardware store. The specialty places have them, but they have to
>'go look' as 'they haven't seen any for years'!!
>
>73, Garey - K4OAH
>Glen Allen, VA

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

[Non-text portions of this message have been removed]

20227. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 20:29:52 UTC
From: Don Cunningham
Topic: 20195 Message: 20227

Naw, you're ALWAYS right on 4 Lines, Jim's ALWAYS right on 7 lines, I
just need to write that one the wall.
I'm getting old and just forget, that's my only defense :>)
73
On 4/19/2014 3:23 PM, Garey Barrell wrote:
>
> Hey! If we all had to be right to post here, it'd be AWWWWWWFUL quiet!!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Don Cunningham wrote:
> > Well, from the preponderance of replies, disregard mine. The four or
> > five I have are apparently the strange ones here. I just never learn to
> > stay in my cave and not post, maybe I will some day if I live long
> > enough. Back in the corner.
> > 73,
> > Don, WB5HAK
> >
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20228. Re: [DrakeRadio] meter peg

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 21:59:14 UTC
From: Steve Wedge
Topic: 20138 Message: 20228

And if you're a real fan of efficiency, like me, you'll find that if you put the receiver on the left and stack it on the MS-4/AC-4, with the transmitter on the right at the same level as the MS-4, the air moved by the fan over the PA cage also significantly cools the transformer area of the receiver

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Saturday, April 19, 2014 9:30 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] meter peg

David -

As long as it isn't the fan for your air conditioner, it's fine! :-) The SMALL fan needed doesn't draw any current relative to the filament supply capability. If you can hear the fan
running, it's probably too powerful. All you need is a gentle breeze blowing air AWAY from the
PA cage. If you think of one of the old-time cardboard hand fans they used to hand out in churches before air conditioning, that's about all the air you need. Most use fans running on
about half their rated voltage. 24 VAC 'box' fans go for next to nothing at hamfests, but they
run great on 12 VAC for our purposes. Or a 12 VDC fan on about 6-7 VDC is good. Many cases you
can get by with just a diode in series with the filament voltage, no 'filter cap'. Experiment.
You'll see how little air movement it takes to reduce the cabinet top temperature from too hot
to rest your hand on, to room temperature.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok Garey, I have read it in several places that the load wasnt needed but what you say does make sense. The design team should have known more than anyone what it took to make them work right. I sure dont want to set it up with limitations that cause it to not work

as well as it can.
> Well how about pulling power from the RV4 plug in for the fan Im installing? Should I just power the fan externally? Im tapping the 12v ac off of pin 7.
> David, KX7C
>
>
>
>
> _____
> From: Garey Barrell <k4oah@mindspring.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Friday, April 18, 2014 6:58 PM
> Subject: Re: [DrakeRadio] meter peg
>
>
>
>
> David -
>
> You should always use the loads. The 'consensus' on the internet ain't always correct.! the
> design engineers at Drake knew considerably more about these designs than the 'internet
> experts'. These are 'critically coupled' dual resonators, and if you just peak them you'll
> have trouble covering all of the larger bands. Look up 'double tuned' circuits in your Handbook
> or on line to eliminate the center peak or the 'swayback' effect from improper tuning.
>
> My favorite is the 'improvement' for VTVMs that move the 1M resistor from the probe tip to the
> range switch to eliminate the need for a special probe.... Yeah, right.....
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols wrote:
>> Garey, that sounds interesting I will have to give it a try to see what happens. And by the way, no Im not using the load setup. The consensus seemed to be that it wasnt necessary and it seemed to be another opportunity to screw up. I prefer to learn from other peoples experiences and screw-ups whenever possible. Believe me, Im still stupid enough to have my own screw-up. I had to go to town today but I may get that fan in yet. Then I will play with T1.
>> David, KX7C
>>
>>
>>
>> _____

>> From: Garey Barrell <k4oah@mindspring.com>
>> To: DrakeRadio@yahoogroups.com
>> Sent: Friday, April 18, 2014 6:26 PM
>> Subject: Re: [DrakeRadio] meter peg
>>
>>
>>
>>
>> David -
>>
>> On T1..... One of the ways you can get into trouble with these double tuned transformers is if
>> one slug is in too far, i.e., on 'outside' of resonance, and it bumps into the other slug. You
>> might try backing that bottom slug all the way out and then go back in watching for the peak.
>>
>> The converse is also true. If the top slug is in too far and you're on the bottom side, same
>> problem.
>>
>> Sounds confusing even to me!! If you have a coil, and the slug starts from way OUT, as you
>> screw it further in, as soon as enough core material is within the field of the coil to hit
>> resonance, you're good. BUT, if you keep turning there will be another resonant point as the
>> core goes through the coil and starts out the other side. If it's on that second 'exiting'
>> resonance, it may be far enough down to prevent the bottom coil from getting far enough into its
>> coil to resonate.
>>
>> Bottom line, if you turn one slug all the way out, and then adjust it in to the 'entry'
>> resonance, and then start with the other slug all the way out and see if you can resonate before
>> it runs into the other slug.
>>
>> Too much???
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols wrote:
>>> OK, Since the Deox Gold isnt really a cleaner I used the red stuff this time and redone the the gold on all of the tubes.

>>> I have changed out V4 and V7, have not powered up to check anything. I am working on a fan installation. I had wanted to get it to 100% operation before I went for any changes but I am impatient I suppose. Once since I put the new 6AQ5A in i did see the meter go to the left. Im still thinking about that issue. For the most part I am working things out and with advise from you and the group Ill either put the flames out crying on it or fix it. hi hi
>>> During T1 adjustment, the top adjusting screw did all the work. I didnt get any response from the bottom adjustment at all. It also has a little tight spot that doesnt feel right to me. Most of the adjustments in this rig are smooth and the bottom of T1 is not. I may have found one, not sure yet, waiting on reply for that. In any event, I will pull T1 and see what it looks like.
>>> By the way, I pulled C130 apart. I was not having a good time finding a sweet spot with the SSB balance, I cleaned it up and put it back in. First time doing one of those. Installed a new 6GX6 and I heard a spot that made me happy. The sound level differential between USB AND LSB just played with my head.
>>> On the calibrator and the wire to the band switch. I thought that might be why that wire was there. I ran into a wire much like that in an old Hallicrafters S38A if i remember right. Learned not to monkey dead end wires in tube rigs.
>>> David, KX7C
>>>
>>>
>>>
>>>
>>> _____
>>> From: Garey Barrell <k4oah@...>
>>> To: DrakeRadio@yahoogroups.com
>>> Sent: Friday, April 18, 2014 6:37 AM
>>> Subject: Re: [DrakeRadio] meter peg
>>>
>>>
>>>
>>>
>>> David -
>>>
>>> You skipped ahead several steps! :-)
>>>
>>> The reason is that the stage current of V4, 11 and 15 is compared with the stage current of V17
>>> in the S-Meter bridge. With a 6AQ5A all four tubes are '11 second warm-up' type, allowing the
>>> currents to come up pretty close together. If the 6AQ5A comes up slowly, the meter deflects
>>> negative. I'm wondering if the DeoxIT suggestion might work, just a little corrosion on the
>>> filament pins that would clear up? If you put the OLD tube back in, is it ok?
>>>
>>> Does T1 peak (dropping off on EITHER side of the peak)? It's been a while since I've been in a
>>> TR-4C, but I believe it's a bit broad tuning. Are you using the alignment load as described??

>>> Top and bottom adjustment respond similarly? Since it tunes up in transmit normally, the only
>>> two tubes that are suspect are V4 and V7.
>>>
>>> The Calibrator signal is injected by a piece of wire that goes from the Calibrator output to the
>>> BAND switch wafer. The wire is NOT connected to a terminal on the switch, rather it is 'woven'
>>> through two holes in the phenolic, i.e., brought 'close' to the RF Stage input.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> David Nichols wrote:
>>>> I replaced the 6AQ5A with a new tube. Noticed, the S meter no longer moves to the left and sticks. It now rises to the right and settles on zero. I guess tube testers just wont tell you everything.
>>>> David, KX7C
>>>>
>>>>
>>>>
>>>>
>>>> _____
>>>> From: David Nichols <hamcomm7@...>
>>>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>>>> Sent: Thursday, April 17, 2014 6:55 PM
>>>> Subject: Re: [DrakeRadio] meter peg
>>>>
>>>>
>>>>
>>>>
>>>> OK, I do have a 6AQ5A at V17.
>>>>
>>>> I have not replaced any caps, but C135 has been replaced with an electrolytic 47uf @ 50V.
>>>> R92, What I can see, looks ok, it measures 291ohms in circuit. (270 ohm +/- 10% called for)
>>>> 6BZ6 is at V5
>>>> I used Deox Gold on all of the tube pins.
>>>> I keep the calibrator off if Im not using it.. hi hi But I cant help but believe I did something stupid here during the alignment. It is very easy to crank on the wrong thing if you dont double and tripple check yourself. (at least for me)
>>>> Now when I was performing the alignment I noticed T1 didnt seem to have much effect. That is, when I compare it with the other injection adjustments. This is where I first noticed the low level indication. Later on, I still couldnt get a good rise on the 10 meter adjustments. It does tune up nicely on ten. So after I completed the process. I checked on

ten to see what reading I could get from the calibrator signal hoping for a good S9 or so and it will only give me a S4.
>>>> I have both 10 meter crystals and the band just doesnt like something. I dropped down to 15 and I get a good S9 there with the calibrator signal. I dont have any other crystals to play with. I just got this rig about a month ago. It just needs some TLC.
>>>> David, KX7C
>>>>
>>>>

[Non-text portions of this message have been removed]

20229. Re: [DrakeRadio] 4 Line meter and VFO lighting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:00:43 UTC
From: Steve Wedge
Topic: 20196 Message: 20229

Is that similar to the shields used around the bulbs in the TR-3/TR-4 for the UPPER and LOWER indicators?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Saturday, April 19, 2014 9:46 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 4 Line meter and VFO lighting

Doug -

I've found it helps a lot to repaint the reflector a nice bright white. They tend to yellow with age, as do the white diffusers. Gets you back to the truer 'blue-touch-o-green' instead of
the blue-green resulting from those yellowish tints. I've never tried it, but I wonder what polishing the bare aluminum reflector with 'Nevr-Dull' would do?? Also, the #755 bulb in place
of the #47, aside from lasting 'forever', reduces the 'hot-spot' a bit...

You could also try a 'light shield' like was used on the old wood cabinet radios. Spring steel,
kinda like a tube shield that doesn't go 'all the way around', leaving a wide 'slit' on the 'back side' of the bulb. They used it to focus the light on the dial area, here it would be rotated so the slit was facing the reflector (polished?) and blocking the direct glare...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dj_coffman@... wrote:
> I absolutely detest the blue LEDs for Drake lighting. Its a personal OCD thing, the color just does not come close to what I like; this is not a bash on those that do. Its also a big OCD thing when I see people reverse the blue and white filter material, UGH!
>
>
> The question I have is has anyone attempted to make any type of light reflector to get the lighting to disperse more evenly on the VFO or meter lighting. All of my 4 line stuff has a "Hot Spot" where the bulb sits and then the lighting gets lighter on the VFO window as you move away from that spot. As expected, there is quite a bit of "Wasted" light that

lights up the inside of the rig. I wondered if someone had improved the factory reflector the bulb socket mounts to.
>
>

[Non-text portions of this message have been removed]

20230. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:10:07 UTC
From: Steve Wedge
Topic: 20172 Message: 20230

As coincidence would have it, I picked up an SPR-4 today at the Raleigh Hamfest (RARSFest).

The line cord is just like the one K9SUL had, with exposed conductors. I'm going to try and shrink-wrap it and try and prolong its life.

The set does have some intermittent gremlins. Flexing the chassis brings the audio back and then cuts it off. I can see that a PO put an electrolytic in parallel with the can cap, so I'll be disconnecting that can cap as one of the first things.

The PTO does feel as though I need about 80 ft lbs to turn it (just kidding - but it is REALLY stiff!).

Other than that, it has the entire top row of crystal sockets populated and it's playing on all bands! Not bad for $125.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: VE3AX/7
Sent: Saturday, April 19, 2014 11:09 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] The "New" SPR-4

Lane:

Congratulations! That looked like a nice example of the SPR-4.

No matter how much use it’s had, it would probably benefit from a thorough cleaning of the PTO gear train, lead screw and front bearing race, if not already done by the PO. Read all you can in the reflector archives first, and keep a digital camera handy as you disassemble. You will be glad you took pictures when you go to re-assemble! I’ve had three SPR-4 PTO’s and a T-4XC PTO apart recently and not one was exactly the same mechanically. Drake used slightly different arrangements of plastic spacers in the dial trains throughout the whole 4 line; even the later C-line like dials there were changes. Pay close attention to where the little fibre washers go. Handle with care as they break easily.

I would pick up a few B-5030 transistors on E-Bay and keep on hand. There is one used in the power supply and two on the audio board, at least through mid-range SPR-4’s. I have not found any other sources other than John Kriner (TR7dude). They are a weird little device and I have had to replace both the PS device in one radio and the two on the audio board in another. You may want to check your rig as it is a very late one, and I’ve been told Drake may have changed the audio board to one using EP-487’s like the DSR/MSR series. I’d be interested to know if that is the case. The B-5030 BASE is the longer lead – that is not clear in the manual.

As Steve has said, check that power cord, especially right at the molded 5 pin plug. Many will be intermittent there. If it is, there is a pretty easy fix that doesn’t deface the radio at all. Involves pulling the 5 pin socket, mounting a small aluminum plate on the inside of the chassis in the same mounting holes, and putting a strain relief for a standard 18 gauge AC line cord there. I have detailed pics of that mod and dimensions of the plate should you need it. And it’s entirely reversible should you ever happen across an original line cord in good shape.

Changing electrolytic caps in the SPR-4 may not be as much a concern as, say, the bias cap in the AC-4 power supply, but there are 3 on the B-5030 style audio board and some in the PS section I’d be wary of. That said, I have not done any in my SPR-4 or RR-1’s yet here.

73
Peter
VE3AX/7

From: lane denune
Sent: Friday, April 18, 2014 12:36 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] The "New" SPR-4

Hello Drake Pros...

Found a FB SPR4 on the bay and is to be delivered shortly. It has the NB5 & 100kc calibrator with a full compliment of crystals.
What can the Drake Gurus tell me about the SPR4 receivers? Hints, Kinks, Tips and experience? Marked with Serial #6164.

Please and Thank You....lane in Columbus, Ohio. 73 n8aft SK ..

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20231. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:11:30 UTC
From: Steve Wedge
Topic: 20204 Message: 20231

13- or 11-tube?

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: prosolar@...
Sent: Saturday, April 19, 2014 12:44 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] strange problem with a drake R4A

Well guys,

I fixed this thing a few years back and it's been sitting on the shelf. I decided to fire it up, and whoa, there are issues.

the only mode it works on is AM. Using the calibrator, i can hear a good solid s-9+ signal on 40 meters

However, when I switch to USB or LSB, there is zip audio. A slight bit, but no signal. The s-meter still shows the calibrator.

Seems like the product detector is not working.

yes, I have carrier as the oscillator is singing with more than ample level.

so, before I spend hours trying to track this problem down, any one been down this road before?

Just popped the bottom cover so I haven't got too deep into it yet.

and of course I've wiggled the tubes, all are lit and every thing seems to work but only in AM mode

mike, wb8vge

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20232. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:34:55 UTC
From: Jim Shorney
Topic: 20195 Message: 20232

Now you're getting it. Although with that ego bump, Garey will be insufferable
for at least a week now.

74

-Jim (I'm always insufferable...)
NU0C

On Sat, 19 Apr 2014 15:29:52 -0500, Don Cunningham wrote:

>Naw, you're ALWAYS right on 4 Lines, Jim's ALWAYS right on 7 lines, I
>just need to write that one the wall.
>I'm getting old and just forget, that's my only defense :>)
>73
>On 4/19/2014 3:23 PM, Garey Barrell wrote:
>>
>> Hey! If we all had to be right to post here, it'd be AWWWWWWFUL quiet!!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Don Cunningham wrote:
>> > Well, from the preponderance of replies, disregard mine. The four or
>> > five I have are apparently the strange ones here. I just never learn to
>> > stay in my cave and not post, maybe I will some day if I live long
>> > enough. Back in the corner.
>> > 73,
>> > Don, WB5HAK
>> >
>>
>>
>
>
>
>---
>This email is free from viruses and malware because avast! Antivirus protection is active.
>http://www.avast.com
>
>
>[Non-text portions of this message have been removed]
>
>

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20233. RE: [DrakeRadio] R-4C Inrad GUF-1 8KHz first IF

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:54:38 UTC
From: Doug Coffman
Topic: 20215 Message: 20233

Garey,

Thanks for the information. I typically work 10M, when 10 is dead then I move up to 15M, 17M and then 20M until I find some activity. What I find is that 20M is almost like CB at some points. I typically find an open frequency around 14.260 - 14.270. I will talk there for awhile and then stations will come in 3KHz above and below full well knowing there is activity where I am. Everyone appears to congregate on 20 within a small part of the band. I adjust the passband tuning and change to the 1.5KHz filter to move away from them as best as possible. If the new IF filter has sharper skirts it might be the cat's meow to help with this problem. When I rag-chew on contest days (I very much dislike contests) it is even worse, 10M is definitely worse than CB on those days.

As always, I greatly appreciate the information!

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Saturday, April 19, 2014 2:51 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4C Inrad GUF-1 8KHz first IF

Doug -

The GUF-1 is the same 'bandwidth' (8 kHz) as the stock 'roofing filter'. BUT it has
considerably steeper skirts and greater stop-band attenuation. It 'probably' won't affect the
NB, and was pretty valuable in it's time. With the (comparatively) wide-open spaces of today's
bands, (except on contest days,) I'd question its' value unless you are a contester.

As far as 'Sherwood Testing' goes, it will improve the 'Dynamic Range Wide Spaced' number
considerably, but won't make a bit of difference in the 'Dynamic Range Narrow Spaced" number.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com <http://www.k4oah.com> >

dj_coffman@... <mailto:dj_coffman@...> wrote:
> Currently thinking about replacing the first IF with the 8KHz Inrad GUF-1, has anyone done this modification and done an A/B comparison to prove or disprove its worthiness?
>
>
> My hope is that I do not start a crud storm but want to find out if it is worthy modification.
>
>
> Doug - N9XTF
>
>

[Non-text portions of this message have been removed]

20234. Re: [DrakeRadio] strange problem with a drake R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:56:04 UTC
From: Mike Bryce
Topic: 20204 Message: 20234

Steve,

it's the 11 tube version

I can't find anything wrong with the circuit, but it won't oscillate. pulled the transistor and it's good. i even put in a 2n4401, making sure the pin out were correct.

no joy

I'll order in caps from mouser monday, but I really don't believe that's the problem.

I've never had a silver mica capacitor show up bad in all the rigs I've worked on (transmitters are a bit different!)

I'm out of clues

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20235. What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 22:59:47 UTC
From: <prosolar@...>
Topic: 20235 Message: 20235

What a day!

Turned on my old R4A and it's dead on single sideband. AM works fine. Going to order parts.

Turned on a TR-4, and small puff of smoke came out. No audio (speaker thumps when turned on) and the S-meter is pegged to the right.

No transmit. No relay clicks

I think I'm going to go out in my greenhouse and watch the flowers grow.

What a weekend this has started to be

mike, wb8vge

[Non-text portions of this message have been removed]

20236. Re: The New SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 23:15:00 UTC
From: lane denune
Topic: 20236 Message: 20236

Thanks for all the input. The rig is about "As New" as one will find. The original #47's had very little wear or solder tip marring which I have found in other old rigs to be an indication of use hours, albeit a crude way to determine. The PTO is spot on as well as the calibration.I have the weighted spinner knob installed now and that is a great improvement. Right now just getting used to it and am having fun using it to tune in Non-Directional Beacons on LW using an active LF Probe. I see the AVC speed problem on CW and plan to change that resistor as well as add the one on the #47 bulb ckt.
The radio came with the original box and documentation including a CD ROM of tech info as well as all mods for this model.
Looks like this rig was bought, used for a month or so and put away somewhere nice.
Today's my 58th birthday, XYL Miss Kim has loaded me up with Drake gear for gifts. She got me a cool "new" TR22C today. It'll be neat just to use it in the local simplex gatherings here even though it is a ricebox, hi.
73 and Thanks from Lane in Columbus...de n8aft sk ..

PS...Looking FWD to Dayton next month.Hope to see some of you there perhaps. Friday is my usual day to attend.

[Non-text portions of this message have been removed]

20237. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 23:15:14 UTC
From: geoffrey mendelson
Topic: 20172 Message: 20237

On 4/19/2014 10:33 PM, Garey Barrell wrote:
>
> Be very careful with the LED 'bulbs' in the Drake 4-Line radios.
>
> The 'drop-in' replacements ONLY drop-in when the socket is wired
> directly to a supply voltage.
>
>
> Still others (SPR-4) have a fixed resistor in series with one bulb and
> two other bulbs in
> series. See above!
>
There are many different LED bulbs out there. I have had no trouble with the 6 volt LED replacement bulbs in my SPR-4's, although eventually I was able to order some 755 bulbs. If they go, I probably will not be able to get more of the 755s.
I have also used the 12 volt ones in Ten-Tec gear. I got mine from superbrightleds.com and they were sold specifically as drop in replacements. They work with both AC and DC and work in series.

Note the 6 volt and 12 volt bulbs are different, they are not 6-12 volt bulbs, so they must have the appropriate resistance.

YMMV.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20238. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 23:24:47 UTC
From: VE3AX/7
Topic: 20195 Message: 20238

Jim:

That’s what I get for doing his before my morning coffee! Several cups of coffee and a 75 km rather cool bike ride later, I am in better shape to assess!

Indeed you are right about the CW-75/SP-75/P-75’s – AC-4 type 6-32 stud, rubber tipped feet. What was I looking at? The bottom plates do have Phillips round head sheet metal screws. I did not pull any but think you are right about them being the blunt type.

My R-7, very late, almost R-7A, has common slots on the cabinet and Phillips head on the sheet metal screws for the bottom plate.

The MN-75 is the same – combination of both head styles.

All MS-7/WH-7/CS-7’s, and there are 3 of each, have common slots on the cabinet screws.

The RV-75, which is a slightly deeper box than the MS-7 style, has Phillips head screws in all locations. I don’t currently own an RV-7.

So I think Garey is right....again...Drake probably used whatever was handy at the time. So I guess if you can get either type Dieter, you’re good to go, at least for the cabinet screws. If you cannot find the #4 type B sheet metal screws, let me know and I’ll see what I can do from here.

73 all – don’t you love this stuff???!!!!

Peter
VE3AX/7

From: Jim Shorney
Sent: Saturday, April 19, 2014 12:21 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR7 Screws

Interesting. My single-owner R-7A has Philips head screws, and I am sure that the original owner was never inside it. Both of my TR-7s in the 3xxx serial range) have Philips, as well as the other TR-7s I have seen. My SP-75 has the Philips sheet metal screws and AC-4 "feet". As does the CS-7 indoor box that I have. Counted in is an MS-7 with Philips machine screws that I believe also was single-owner. However, the RV-7 that I use has slotted screws. I'm not going to take the other RV-7 out of the box to look at it. So it appears that Philips head are also "true" Drake.

To complete my earlier answer, both screws measure at 1/4 inch in length. The sheet metal screws appear to be "Type B" (blunt) screws, but I have not confirmed this by physical comparison to known samples as of yet. Pointy screws would probably work OK, but there may be a slight difference in the pitch of the thread.

73

-Jim
NU0C

On Sat, 19 Apr 2014 10:29:01 -0500, Don Cunningham wrote:

>Jim,
>I think you will find that on a true original TR7, the outer case screws
>are actually a standard slotted head screw, not a phillips head. Many
>have been changed over the years, but the true original I believe were
>slotted. I have several one owner rigs, the latest one I haven't picked
>up yet, but I believe it has never been violated and I will double check
>that one to be sure and tell you if I am wrong. The last one I have in
>sight I got from an estate, and the owner was so anal, that I have
>documentation on EVERYTHING from it's "birth" in the 1980's to the last
>he did to it, including all the old parts he replaced taped to the
>documentation!!! It is outfitted as I described.
>
>It really doesn't matter to me, as I don't stay QUITE that original, but
>Dieter did ask for originality, so I thought I'd risk sticking that in.
>73 all,
>Don, WB5HAK
>On 4/19/2014 9:34 AM, Jim Shorney wrote:
>>
>>
>> The screws for the top cover are 4-40 machine screws. The bottom plate
>> is held
>> by what I believe to be #4 Type B sheet metal screws. I was just
>> researching
>> that last night, as I lost a couple of the bottom screws. I can get
>> you the
>> length later, as I am on my way out for the morning and don't have time to
>> measure them right now. Both are round head Phillips type.
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Sat, 19 Apr 2014 11:16:32 +0200, Dieter Horst wrote:
>>
>> >Gentlemen,
>> >my nearly finished project TR7 came without cabinet screws. The screws
>> >for the bottom plate were missing, too.
>> >
>> >I am reluctant to convert everything to metric as I want to keep the
>> >radio orginal.
>> >Can anyone tell me which screws were used? I am not so familiar with the
>> >American threads.
>> >
>> >Sourcing them here in Germany is another story. But I am sure I will not

>> >be left alone there either.
>> >
>> >73s, Dieter DL5RDO
>> >
>> >
>> >
>> >
>> >------------------------------------
>> >
>> >Yahoo Groups Links
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>> --
>>
>> "A deep understanding of reality is exactly the same thing as
>> laziness." - Wally, "Dilbert"
>>
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>
>
>
>---
>This email is free from viruses and malware because avast! Antivirus protection is active.
>http://www.avast.com
>
>
>[Non-text portions of this message have been removed]
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

[Non-text portions of this message have been removed]

20239. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 23:44:38 UTC
From: Joe - W7RKN
Topic: 20235 Message: 20239

I wouldn't, if I were you......Something dire might happen!

HEH

Joe - W7RKN

----- Original Message -----
From: <prosolar@...>
Subject: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

> What a day!
> No transmit. No relay clicks
> I think I'm going to go out in my greenhouse and watch the flowers grow.
> What a weekend this has started to be

[Non-text portions of this message have been removed]

20240. Re: [DrakeRadio] The "New" SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-19 23:49:52 UTC
From: VE3AX/7
Topic: 20172 Message: 20240

As Geoff has stated, you can easily run the SPR-4 off an outboard DC supply and that is a very suitable option. There is one pin on the 5 pin socket that has TWO orangey-red/white wires attached to it. Unsolder those and move them to a new DC connector of your choice mounted in one of the spare holes on the rear panel. Use that as the +ve lead with chassis ground to the -ve lead.

Just one caution – do NOT connect an original “plugged in” AC line cord when you are using an external DC supply, unless you want to see some fireworks. The original Drake-supplied DC cord was OK as it had internal connections that prevented the fireworks and forced the removal of the AC line cord.

I am pretty sure you will lose the ON/OFF capability of the front panel switch with the DC connected externally to those two wires. I don’t have a schematic in front of me to be 100% sure. The nice thing about using the external supply is you avoid any potential problems with the internal AC supply. A 1 amp/12VDC wall wart should work ok as long as it is a well-filtered variety. Some are pretty “buzzy”!

73
Peter
VE3AX/7

From: geoffrey mendelson
Sent: Saturday, April 19, 2014 11:33 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] The "New" SPR-4

On 4/18/2014 10:36 PM, lane denune wrote:
>
> Hello Drake Pros...
>
> Found a FB SPR4 on the bay and is to be delivered shortly. It has the
> NB5 & 100kc calibrator with a full compliment of crystals.
> What can the Drake Gurus tell me about the SPR4 receivers? Hints,
> Kinks, Tips and experience? Marked with Serial #6164.
>

There was a lot of discussion on this group about SPR-4's and their
PTO's and dial mechanisms.

What I would do first is to see if the dial moves freely or not (do not
force it, it is not "just stiff" if it does not), and then open the unit
to determine which PTO and dial assembly it has.

I would also look at the blue lenses to see how blue they are and which
light bulbs work. There are three options, one is to replace them all
with #47 bulbs. The second is to replace them with longer lasting bulbs
(which I think are slightly redder) and the third is to replace them

with LEDs. There are lots of places that sell drop in 6v bayonet light bulbs with LEDs in them. I got mine from superbrightleds.com, but there is also cointaker and the 2b parts has them now too. My advice to you is unless you really want to be as close to factory fresh as possible, replace the S meter and tuning dial bulbs with blue LEDs and the center bulb with a long lasting incandescent one. You may also get an unusual, but useful look replacing the center one with a red LED, I don't know.

Don't expect it to be what it is not. It is really designed for casual listening to shortwave broadcasts in the day the band was not crowded. It does receive USB/LSB and CW, but it is not as sharp as some people would like. Don't expect it to be a modern receiver with narrow filters or DSP and you will be fine. That said, with a good speaker or headphones, it makes a great receiver for listening to moderately strong shortwave broadcasts.

The factory unit did NOT come with the ham bands, and while it works on the ham bands with the right crystals, I don't recommend buying them for it if they are not already in it.

In contrast to Peter, I do NOT recommend doing anything to the power supply, or power cord. If they need work or replacement, I would run a pair of wires from the 12 volt input out one of the spare holes in the rear of the radio and power it from a 12v power supply. The radio itself uses very little power, the rating doubles with the lights on.

If you plan to use headphones, unless you have 1960's vintage headphones, make an adaptor cable with a 1/4" inch mono plug for the radio, and mini socket for your headphones. Put a resistor (40-60 Ohms) in series with the "hot lead".

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20241. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 00:25:03 UTC
From: GRANT YOUNGMAN
Topic: 20235 Message: 20241

I feel your pain. I had the same thing happen with my CE-100V today while thinking I?d put it on the air paired up with my ?new? R-4B. It was working fine when I put it in the back room a couple of years ago.

I decided to put it aside until next week and enjoy my weekend instead. I can?t get my head around the schematic and voltage charts on such a nice day, and figure it?s not good to work on a radio when you?re angry with it :)

Grant NQ5T

>
> > What a day!
> > No transmit. No relay clicks
> > I think I'm going to go out in my greenhouse and watch the flowers grow.
> > What a weekend this has started to be
>
>

[Non-text portions of this message have been removed]

20242. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 01:22:45 UTC
From: David E. Rudd, CET WCM
Topic: 20235 Message: 20242

Is Mercury in retrograde or something?

David

Sent from my iPhone AI4JI

> On Apr 19, 2014, at 20:25, GRANT YOUNGMAN <nq5t@...> wrote:
>
> I feel your pain. I had the same thing happen with my CE-100V today while thinking I'd put it on the air paired up with my "new" R-4B. It was working fine when I put it in the back room a couple of years ago.
>
> I decided to put it aside until next week and enjoy my weekend instead. I can't get my head around the schematic and voltage charts on such a nice day, and figure it's not good to work on a radio when you're angry with it :)
>
> Grant NQ5T
>
>
>
>>
>>> What a day!
>>> No transmit. No relay clicks
>>> I think I'm going to go out in my greenhouse and watch the flowers grow.
>>> What a weekend this has started to be
>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20243. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 02:11:32 UTC
From: Steve VK2SJA
Topic: 20235 Message: 20243

Chuckle. Somehow the word "Triffid" springs to my mind.

Hope your weekend improves Mike!

73, Steve

> I wouldn't, if I were you......Something dire might happen!
>
> HEH
>
> Joe - W7RKN
>
> ----- Original Message -----
> From: <prosolar@...>
> Subject: [DrakeRadio] What did I do to warrant this? Now a dead TR-4
>
>
>> What a day!
>> No transmit. No relay clicks
>> I think I'm going to go out in my greenhouse and watch the flowers grow.
>> What a weekend this has started to be
>
>
> [Non-text portions of this message have been removed]
>
>

20244. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 02:24:14 UTC
From: Richard Knoppow
Topic: 20235 Message: 20244

```
----- Original Message -----
From: <prosolar@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, April 19, 2014 3:59 PM
Subject: [DrakeRadio] What did I do to warrant this? Now a
dead TR-4

> What a day!
>
> Turned on my old R4A and it's dead on single sideband. AM
> works fine. Going to order parts.
>
>
> Turned on a TR-4, and small puff of smoke came out. No
> audio (speaker thumps when turned on) and the S-meter is
> pegged to the right.
>
>
> No transmit. No relay clicks
>
>
> I think I'm going to go out in my greenhouse and watch the
> flowers grow.
>
>
> What a weekend this has started to be
>
>
> mike, wb8vge
>
>

What you did was to get up in the morning. Can't help
with the R4 but the TR-4 may yield up to a careful
inspection. If you don't see anything visually use your
nose. It could be a cap, they often poop out with a puff of
smoke. Other less easy to find or fix things can happen too
but check for puffed up caps or burned looking resistors.
Note that resistors do not always burn up, they can just
split so poke at the wiring while inpecting it. A chopstick
works fine for this.
Now, if this was something modern you could send it to
the factory or just toss it because no one can fix that
stuff, but, with a little struggle, the TR-4 will be back
like new.
```

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20245. Re: [DrakeRadio] R-4C Inrad GUF-1 8KHz first IF

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 02:39:37 UTC
From: Garey Barrell
Topic: 20215 Message: 20245

Doug -

The key is to move 'between channels' now. We have apparently become a channelized service now
with all the digital readouts, etc. Seems 'we' only make contacts on even 5's or 10's of kHz.
And then spend time arguing about who's off (or on!) frequency.....

I doubt the GUF-1 would do much good, since it's still 8 kHz wide. It's just if you can get them a few kHz away, they'll drop off in level faster... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Doug Coffman wrote:
> Garey,
>
>
>
> Thanks for the information. I typically work 10M, when 10 is dead then I
> move up to 15M, 17M and then 20M until I find some activity. What I find is
> that 20M is almost like CB at some points. I typically find an open
> frequency around 14.260 - 14.270. I will talk there for awhile and then
> stations will come in 3KHz above and below full well knowing there is
> activity where I am. Everyone appears to congregate on 20 within a small
> part of the band. I adjust the passband tuning and change to the 1.5KHz
> filter to move away from them as best as possible. If the new IF filter has
> sharper skirts it might be the cat's meow to help with this problem. When I
> rag-chew on contest days (I very much dislike contests) it is even worse,
> 10M is definitely worse than CB on those days.
>
>
>
> As always, I greatly appreciate the information!
>
>
>
> Doug - N9XTF
>
>
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On

> Behalf Of Garey Barrell
> Sent: Saturday, April 19, 2014 2:51 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] R-4C Inrad GUF-1 8KHz first IF
>
>
>
>
>
> Doug -
>
> The GUF-1 is the same 'bandwidth' (8 kHz) as the stock 'roofing filter'. BUT
> it has
> considerably steeper skirts and greater stop-band attenuation. It 'probably'
> won't affect the
> NB, and was pretty valuable in it's time. With the (comparatively) wide-open
> spaces of today's
> bands, (except on contest days,) I'd question its' value unless you are a
> contester.
>
> As far as 'Sherwood Testing' goes, it will improve the 'Dynamic Range Wide
> Spaced' number
> considerably, but won't make a bit of difference in the 'Dynamic Range
> Narrow Spaced" number.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com <http://www.k4oah.com> >
>
> dj_coffman@... <mailto:dj_coffman@...> wrote:
>> Currently thinking about replacing the first IF with the 8KHz Inrad GUF-1,
> has anyone done this modification and done an A/B comparison to prove or
> disprove its worthiness?
>>
>> My hope is that I do not start a crud storm but want to find out if it is
> worthy modification.
>>
>> Doug - N9XTF
>>
>>
>
>
>
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20246. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 02:41:10 UTC
From: Garey Barrell
Topic: 20235 Message: 20246

Mike -

Check around the 6AQ5A, especially the Cathode circuit.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... wrote:
> What a day!
>
> Turned on my old R4A and it's dead on single sideband. AM works fine. Going to order parts.
>
>
> Turned on a TR-4, and small puff of smoke came out. No audio (speaker thumps when turned on) and the S-meter is pegged to the right.
>
>
> No transmit. No relay clicks
>
>
> I think I'm going to go out in my greenhouse and watch the flowers grow.
>
>
> What a weekend this has started to be
>
>
> mike, wb8vge
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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>

20247. Re: [DrakeRadio] 4 Line meter and VFO lighting

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 02:52:47 UTC
From: Garey Barrell
Topic: 20196 Message: 20247

Steve -

Sorta..... The TR-4 jobs went all the way around, but were open on the end. These were more 'tin-plate' thickness, rounded off over the end of the bulb and didn't go quite all the way around the tubular part. Left 20 - 30% of the tubular part clear, so you could rotate it around
to direct the light on the dial.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> Is that similar to the shields used around the bulbs in the TR-3/TR-4 for the UPPER and LOWER indicators?
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Garey Barrell
> Sent: Saturday, April 19, 2014 9:46 AM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] 4 Line meter and VFO lighting
>
>
>
> Doug -
>
> I've found it helps a lot to repaint the reflector a nice bright white. They tend to yellow
> with age, as do the white diffusers. Gets you back to the truer 'blue-touch-o-green' instead of
> the blue-green resulting from those yellowish tints. I've never tried it, but I wonder what
> polishing the bare aluminum reflector with 'Nevr-Dull' would do?? Also, the #755 bulb in place
> of the #47, aside from lasting 'forever', reduces the 'hot-spot' a bit...

>
> You could also try a 'light shield' like was used on the old wood cabinet radios. Spring steel,
> kinda like a tube shield that doesn't go 'all the way around', leaving a wide 'slit' on the
> 'back side' of the bulb. They used it to focus the light on the dial area, here it would be
> rotated so the slit was facing the reflector (polished?) and blocking the direct glare...
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> dj_coffman@... wrote:
>> I absolutely detest the blue LEDs for Drake lighting. Its a personal OCD thing, the color just does not come close to what I like; this is not a bash on those that do. Its also a big OCD thing when I see people reverse the blue and white filter material, UGH!
>>
>>
>> The question I have is has anyone attempted to make any type of light reflector to get the lighting to disperse more evenly on the VFO or meter lighting. All of my 4 line stuff has a "Hot Spot" where the bulb sits and then the lighting gets lighter on the VFO window as you move away from that spot. As expected, there is quite a bit of "Wasted" light that lights up the inside of the rig. I wondered if someone had improved the factory reflector the bulb socket mounts to.
>>
>>

20248. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 12:46:25 UTC
From: Chgypsy@...
Topic: 20195 Message: 20248

I have one that was not violated, and agree with Don that the screws are all negative (slotted) if the SN does any good its 1513.

Would also have to agree that as long as all are the same EG Phillips....who cares. Carl wd8nhk

In a message dated 4/19/2014 11:29:17 A.M. Eastern Daylight Time, donc@... writes:

I think you will find that on a true original TR7, the outer case screws are actually a standard slotted head screw, not a phillips head. Many have been changed over the years, but the true original I believe were slotted. I have several one owner rigs, the latest one I haven't picked up yet, but I believe it has never been violated

[Non-text portions of this message have been removed]

20249. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 14:05:28 UTC
From: Garey Barrell
Topic: 20195 Message: 20249

Taking it a step further, who cares what they are.....? It's just 'solid state' stuff......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
> I have one that was not violated, and agree with Don that the screws are
> all negative (slotted) if the SN does any good its 1513.
>
> Would also have to agree that as long as all are the same EG
> Phillips....who cares. Carl wd8nhk
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>
> In a message dated 4/19/2014 11:29:17 A.M. Eastern Daylight Time,
> donc@... writes:
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> are actually a standard slotted head screw, not a phillips head. Many
> have been changed over the years, but the true original I believe were
> slotted. I have several one owner rigs, the latest one I haven't picked
> up yet, but I believe it has never been violated
>
>

20250. Re: [DrakeRadio] Screws & Guru's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 14:18:41 UTC
From: Chgypsy@...
Topic: 20250 Message: 20250

k4oah@... writes:

Taking it a step further, who cares what they are.....? It's just 'solid state' stuff......
73, Garey - K4OAH
Yep ! Here we go with the NAAA NAAA NAAA NAAA NAAAAA ! NAAAAA!
wars....

PPPPPLLLLLAAAAATTTTHHHH !

Both of you must be on a three day weekend.

73's all Carl WD8NHK

[Non-text portions of this message have been removed]

20251. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 14:30:16 UTC
From: Mike Bryce
Topic: 20235 Message: 20251

Garey and the group.

I made it three for three last night.

I have a solid state audio amplifier I use for signal tracing.

The TR-4 had a burnt resistor in the AGC circuit so I replaced it.

There is still no TX, the relays won't pull in.

I can 'see' the calibrator on the meter, but no audio (let me clear that a bit. If I turn the audio all the way up, i can barely heard it out of the speaker.)

So i decided that I'l probe the input and output of the 6AQ5.

Using a capacitor to block the DC, I touched the plate. For an instant I heard the calibrator and then all the smoke went out of the audio amplifier tracer unit.

I shut everything down and went to bed.
--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
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[Non-text portions of this message have been removed]

20252. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 14:44:48 UTC
From: Garey Barrell
Topic: 20235 Message: 20252

Mike -

Just remember.......

'We do this for fun...' 'We do this for fun...' 'We do this for ....' :-)

The low level audio stages run off of the same 17.5 V bus from the 10k resistor.

Check the DC on the 6AQ5A... We seem to be running into a spate of Output Transformer failures
lately. They must be nearing the end of the warranty period!!

Watch that switch on the left side of the TR-4C. If not blocked, it's easy to hit when hauling
the transceiver around. What resistor burnt??

I think you made the right decision for the time!!!!!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
> Garey and the group.
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> I made it three for three last night.
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> I have a solid state audio amplifier I use for signal tracing.
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> The TR-4 had a burnt resistor in the AGC circuit so I replaced it.
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> There is still no TX, the relays won't pull in.
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> I can 'see' the calibrator on the meter, but no audio (let me clear that a
> bit. If I turn the audio all the way up, i can barely heard it out of the
> speaker.)
>
> So i decided that I'l probe the input and output of the 6AQ5.
>
> Using a capacitor to block the DC, I touched the plate. For an instant I
> heard the calibrator and then all the smoke went out of the audio amplifier
> tracer unit.
>
> I shut everything down and went to bed.

20253. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 17:05:17 UTC
From: Mike Bryce
Topic: 20235 Message: 20253

We do this for fun.... we do this for fun...

i'll keep trying to remember that...

The switch on the side has been disabled. It broke years ago and someone wired it direct.

The audio , or lack of, is in the TR-4.

What are the collectors of these things doing for replacement audio transformers?

I'll throw a scope on the plate, when I feel I got the nerve to do so today, and see if there is audio there. If so, then I guess the transformer is kaput.

would the audio problem cause the relays to fail to pull in?

On Sun, Apr 20, 2014 at 10:44 AM, Garey Barrell <k4oah@...>wrote:

>
>
> Mike -
>
> Just remember.......
>
> 'We do this for fun...' 'We do this for fun...' 'We do this for
> ....' :-)
>
> The low level audio stages run off of the same 17.5 V bus from the 10k
> resistor.
>
> Check the DC on the 6AQ5A... We seem to be running into a spate of Output
> Transformer failures
> lately. They must be nearing the end of the warranty period!!
>
> Watch that switch on the left side of the TR-4C. If not blocked, it's easy
> to hit when hauling
> the transceiver around. What resistor burnt??
>
> I think you made the right decision for the time!!!!!!! :-)
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

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> Mike Bryce wrote:
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> > There is still no TX, the relays won't pull in.
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> > bit. If I turn the audio all the way up, i can barely heard it out of the
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> > I shut everything down and went to bed.
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>
>

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

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[Non-text portions of this message have been removed]

20254. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 18:25:42 UTC
From: Richard Knoppow
Topic: 20235 Message: 20254

```
----- Original Message -----
From: "Mike Bryce" <prosolar@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 20, 2014 10:05 AM
Subject: Re: [DrakeRadio] What did I do to warrant this? Now
a dead TR-4

> We do this for fun.... we do this for fun...
>
> i'll keep trying to remember that...
>
> The switch on the side has been disabled. It broke years
> ago and someone
> wired it direct.
>
> The audio , or lack of, is in the TR-4.
>
> What are the collectors of these things doing for
> replacement audio
> transformers?
>
> I'll throw a scope on the plate, when I feel I got the
> nerve to do so
> today, and see if there is audio there. If so, then I
> guess the transformer
> is kaput.
>
> would the audio problem cause the relays to fail to pull
> in?

Take your scope and look at the audio output _grid_
never mind the plate, in fact you can pull the tube out.
Are you getting anything at the grid. If not you can work
back to the source, if you are then check the plate circuit.
First thing is to make sure the switch on the headphone jack
is working, do you hear audio with phones? I think you
said the speaker thumped when AC was applied so this is
probably not what is happening. Check to see if the output
transformer is open, if it thumps its probably not. Check
the capacitor that feeds the anti-vox, C-142. If its shorted
it will put DC in places its not wanted and could explain if
the VOX and keying doesn't work. I don't remember if it was
the TR-4 or R4A that smoked. If its this rig I repeat my
advice to inspect very carefully for anything burned or for
a burned smell. Its been a while but the odors tend to hang
```

around.
If you have an audio oscillator you can test the
output transformer with the set off, remove the output tube
and put the oscillator on the plate lead, it should be
audible.
I can't explain your signal tracing amp except that
you must have used a capacitor that shorted as soon as some
DC got on it. Use the scope and see what you find. I don't
think its the transformer although its always a possibility.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20255. Re: [DrakeRadio] TR7 Screws

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 18:27:40 UTC
From: Jim Shorney
Topic: 20195 Message: 20255

True, that. I'm sure the op at Mellish Reef didn't care about what kind of screws I have.

73

-Jim
NU0C

On Sun, 20 Apr 2014 10:05:28 -0400, Garey Barrell wrote:

>Taking it a step further, who cares what they are.....? It's just 'solid state' stuff......
>
>73, Garey - K4OAH
>Glen Allen, VA
>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>Chgypsy@... wrote:
>> I have one that was not violated, and agree with Don that the screws are
>> all negative (slotted) if the SN does any good its 1513.
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>> In a message dated 4/19/2014 11:29:17 A.M. Eastern Daylight Time,
>> donc@... writes:
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>> I think you will find that on a true original TR7, the outer case screws
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>> have been changed over the years, but the true original I believe were
>> slotted. I have several one owner rigs, the latest one I haven't picked
>> up yet, but I believe it has never been violated
>>
>>
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20256. Re: [DrakeRadio] Screws & Guru's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 18:39:53 UTC
From: Jim Shorney
Topic: 20250 Message: 20256

We don't need that for an excuse...

73

-Jim

On Sun, 20 Apr 2014 10:18:41 -0400 (EDT), Chgypsy@... wrote:

>Both of you must be on a three day weekend.

--
It's been said that if you give a million monkeys a typewriter each, one of them will eventually type Shakespeare. Thanks to the Internet, we now know this isn't true.

20257. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 19:00:19 UTC
From: Garey Barrell
Topic: 20235 Message: 20257

Mike -

No, probably not. You don't need a scope, just measure the DC on the 6AQ5A.

The Bogen T725 'Universal' transformer is a decent replacement, assuming a donor unit isn't available. Of course the donor unit may have the same 'warranty' expiration! :-)

What was the burned resistor??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
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> would the audio problem cause the relays to fail to pull in?
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>> Watch that switch on the left side of the TR-4C. If not blocked, it's easy
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>> I think you made the right decision for the time!!!!!!! :-)
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>> Glen Allen, VA
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>>> bit. If I turn the audio all the way up, i can barely heard it out of the
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>>> So i decided that I'l probe the input and output of the 6AQ5.
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>>> Using a capacitor to block the DC, I touched the plate. For an instant I
>>> heard the calibrator and then all the smoke went out of the audio
>> amplifier
>>> tracer unit.
>>>
>>> I shut everything down and went to bed.
>>
>>
>

>

20258. Re: [DrakeRadio] Screws & Guru's

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 19:04:34 UTC
From: Garey Barrell
Topic: 20250 Message: 20258

Obviously! (See last line of this message!)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
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> 73
>
> -Jim
>
>
> On Sun, 20 Apr 2014 10:18:41 -0400 (EDT), Chgypsy@... wrote:
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> --
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>
>

20259. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 18:41:06 UTC
From: Jim Lewis
Topic: 20235 Message: 20259

I roger what Garey said about the rcvr/trcvr slide switch on the left rear of the trcvr. Did the same thing when moving my TR4 the other day, and spent part of the night checking things out B4 looking at that switch!

72, Jim - K5EH
----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Sunday, April 20, 2014 8:44 AM
Subject: Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Mike -

Just remember.....

'We do this for fun...' 'We do this for fun...' 'We do this for ....' :-)

The low level audio stages run off of the same 17.5 V bus from the 10k resistor.

Check the DC on the 6AQ5A... We seem to be running into a spate of Output Transformer failures
lately. They must be nearing the end of the warranty period!!

Watch that switch on the left side of the TR-4C. If not blocked, it's easy to hit when hauling
the transceiver around. What resistor burnt??

I think you made the right decision for the time!!!!!!! :-)

73, Garey - K4OAH
Glen Allen, VA

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Mike Bryce wrote:
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> I can 'see' the calibrator on the meter, but no audio (let me clear that a

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> speaker.)
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> Using a capacitor to block the DC, I touched the plate. For an instant I
> heard the calibrator and then all the smoke went out of the audio amplifier
> tracer unit.
>
> I shut everything down and went to bed.

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20260. Re: [DrakeRadio] TR-4 audio transformer

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 19:12:34 UTC
From: Chgypsy@...
Topic: 20260 Message: 20260

Hi all, this was discussed a while back (maybe Jan / Feb) and Garey gave a manufacturer and source. So it either repeats or is in the archives. Or at least I believe it was TR4. Carl wd8nhk

In a message dated 4/20/2014 2:26:22 P.M. Eastern Daylight Time, 1oldlens1@... writes:

What are the collectors of these things doing for replacement audio transformers?

[Non-text portions of this message have been removed]

20261. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 19:26:05 UTC
From: Richard Knoppow
Topic: 20235 Message: 20261

----- Original Message -----
From: "Jim Lewis" <k5eh@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 20, 2014 11:41 AM
Subject: Re: [DrakeRadio] What did I do to warrant this? Now
a dead TR-4

>I roger what Garey said about the rcvr/trcvr slide switch
>on the left rear of the trcvr. Did the same thing when
>moving my TR4 the other day, and spent part of the night
>checking things out B4 looking at that switch!
>
I had my TR-4 stashed on a shelf on its side for a
while. When I took out again I found the switch had broken.
It sticks out enough so don't put the thing on its side. I
was able to get an exact replacement from the local Radio
Shack.
I saw most of this thread at work where I really could
not follow it and am trying to catch up. The same fellow
had a problem with an R4A. I thought the resistor Garrey
asked about was in that. Finding where it is should be a
major clue as to what has happened.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20262. T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 20:31:27 UTC
From: <n1ohn@...>
Topic: 20262 Message: 20262

Hello all

Well my T4XB resurrection project is coming along. I now have a working power supply, replaced my bad coils and caps and now I have power to the radio witch I never had before :) Now I need your help again! my 60uf 250v cap is bad and I'm having a problem locating one. I have found this cap and I'm wondering if it will work?

http://www.parts-express.com/dayton-audio-dmpc-60-60uf-250v-polypropylene-capacitor--027-444 http://www.parts-express.com/dayton-audio-dmpc-60-60uf-250v-polypropylene-capacitor--027-444
Thanks All!!! :)
Dave

[Non-text portions of this message have been removed]

20263. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 20:43:47 UTC
From: <n1ohn@...>
Topic: 20262 Message: 20263

this is the one ......

http://www.parts-express.com/Data/Default/Images/Catalog/Original/027-444_HR_0.jpg

Roll over image to zoom Click for larger image http://www.parts-express.com/ViewProductImage.aspx?productid=9423&productzoomimage=True&img=027-444_HR_0.jpg

Dayton Audio DMPC-60 60uF 250V Polypropylene Capacitor
Brand: Dayton Audio http://www.parts-express.com/brand/dayton-audio/301
| Model: DMPC-60

Overview
Make the Dayton Audio line of metallized polypropylene capacitors your standard choice for all of your loudspeaker projects! The same high quality as the competing brands ... but at a much lower price. They are suitable for a wide range of applications.

Highlights
250 VDC rating 5% tolerance High purity High current capacity Specially designed for crossovers Dimensions: 40 mm x 77 mm

Part # 027-4

[Non-text portions of this message have been removed]

20264. Re: [DrakeRadio] T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 20:44:42 UTC
From: Garey Barrell
Topic: 20262 Message: 20264

Dave -

Should work fine, but where you gonna put it???? Have you checked with Tom at Hayseedhamfest.com?? He offers a drop-in replacement.

Plus, it's generally not a good idea to replace only part of a multisection cap. If one part is
bad, the other is typically not far behind.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Hello all
>
>
> Well my T4XB resurrection project is coming along. I now have a working power supply, replaced my bad coils and caps and now I have power to the radio witch I never had before :) Now I need your help again! my 60uf 250v cap is bad and I'm having a problem locating one. I have found this cap and I'm wondering if it will work?
>
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> http://www.parts-express.com/dayton-audio-dmpc-60-60uf-250v-polypropylene-capacitor--027-444 http://www.parts-express.com/dayton-audio-dmpc-60-60uf-250v-polypropylene-capacitor--027-444
> Thanks All!!! :)
> Dave
>

20265. Re: [DrakeRadio] T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 21:02:55 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20265

Hi Garey and thanks again for your help!!!!

Well finding the 10uf at 25v is not to much of a problem. Were am I going to put it is a very good question lol... I'm thinking of soldering the ground wire to the underside of the chassis were the old can ground wire was and bring the cap up threw the hole and cover the positive end with tubing and back down to the connecting wire. Don't really now until I get it in my hands lol.

Yeah I ordered a new can from Tom unfortunately he is having problems with venders and tooling for his cans. Don't know when they will be back in stock he is working hard to resolve this so I'm hoping that my fix will be temporary until Tom has them back in stock. What a nice man and great support he gives :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20266. TR-4cw

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 21:06:35 UTC
From: David Nichols
Topic: 20266 Message: 20266

I cant get much S meter indication on 10 meters after alignment. The calibrator is strong on the other bands but Im seeing S2-S4 on the 10 meter portions. Heres the strange thing, if I slide the RCVR/TCVR from tcvr to rcvr the reading jumps from S2 up to S8. The switch doesnt have this effect on the other bands.

David, KX7C

[Non-text portions of this message have been removed]

20267. Re: [DrakeRadio] T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 22:14:21 UTC
From: Steve Wedge
Topic: 20262 Message: 20267

Electrolytics are so much smaller nowadays: I haven't had any problem squeezing a 68 uF @ 250V or so under the chassis, and, of course, a 10 uF @ 25V is not much bigger than a 1/2W resistor...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: n1ohn@...
Sent: Sunday, April 20, 2014 5:02 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] T4XB 60uf Cap??

Hi Garey and thanks again for your help!!!!

Well finding the 10uf at 25v is not to much of a problem. Were am I going to put it is a very good question lol... I'm thinking of soldering the ground wire to the underside of the chassis were the old can ground wire was and bring the cap up threw the hole and cover the positive end with tubing and back down to the connecting wire. Don't really now until I get it in my hands lol.

Yeah I ordered a new can from Tom unfortunately he is having problems with venders and tooling for his cans. Don't know when they will be back in stock he is working hard to resolve this so I'm hoping that my fix will be temporary until Tom has them back in stock. What a nice man and great support he gives :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20268. Re: [DrakeRadio] TR-4cw

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 22:16:48 UTC
From: Steve Wedge
Topic: 20266 Message: 20268

Try temporarily bypassing the switch with a jumper.

The calibrator does lose steam on the higher bands. A better test of sensitivity is to put a 50 uV signal in via the antenna connector and look at the S-meter reading. It should be around S9.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: David Nichols
Sent: Sunday, April 20, 2014 5:06 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] TR-4cw

I cant get much S meter indication on 10 meters after alignment. The calibrator is strong on the other bands but Im seeing S2-S4 on the 10 meter portions. Heres the strange thing, if I slide the RCVR/TCVR from tcvr to rcvr the reading jumps from S2 up to S8. The switch doesnt have this effect on the other bands.

David, KX7C

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20269. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 23:08:21 UTC
From: Mike Bryce
Topic: 20235 Message: 20269

Resistor looked to be 100 ohms and on the s-meter zero trimmer that is
mounted on the side chassis

mike wb8vge

On Sun, Apr 20, 2014 at 3:00 PM, Garey Barrell <k4oah@...> wrote:

>
>
> Mike -
>
> No, probably not. You don't need a scope, just measure the DC on the 6AQ5A.
>
> The Bogen T725 'Universal' transformer is a decent replacement, assuming a
> donor unit isn't
> available. Of course the donor unit may have the same 'warranty'
> expiration! :-)
>
> What was the burned resistor??
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Mike Bryce wrote:
> > We do this for fun.... we do this for fun...
> >
> > i'll keep trying to remember that...
> >
> > The switch on the side has been disabled. It broke years ago and someone
> > wired it direct.
> >
> > The audio , or lack of, is in the TR-4.
> >
> > What are the collectors of these things doing for replacement audio
> > transformers?
> >
> > I'll throw a scope on the plate, when I feel I got the nerve to do so
> > today, and see if there is audio there. If so, then I guess the
> transformer
> > is kaput.
> >

> > would the audio problem cause the relays to fail to pull in?
> >
> >
> >
> >
> > On Sun, Apr 20, 2014 at 10:44 AM, Garey Barrell <k4oah@...
> >wrote:
> >
> >>
> >> Mike -
> >>
> >> Just remember.......
> >>
> >> 'We do this for fun...' 'We do this for fun...' 'We do this for
> >> ....' :-)
> >>
> >> The low level audio stages run off of the same 17.5 V bus from the 10k
> >> resistor.
> >>
> >> Check the DC on the 6AQ5A... We seem to be running into a spate of
> Output
> >> Transformer failures
> >> lately. They must be nearing the end of the warranty period!!
> >>
> >> Watch that switch on the left side of the TR-4C. If not blocked, it's
> easy
> >> to hit when hauling
> >> the transceiver around. What resistor burnt??
> >>
> >> I think you made the right decision for the time!!!!!!! :-)
> >>
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
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> >>> I made it three for three last night.
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> >>> I can 'see' the calibrator on the meter, but no audio (let me clear
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> >>> Using a capacitor to block the DC, I touched the plate. For an instant
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> >> amplifier
> >>> tracer unit.
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> >>> I shut everything down and went to bed.
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> >>
> >
> >
>
>

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20270. Re: [DrakeRadio] T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-20 23:10:34 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20270

I may try stiffing a old can.

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20271. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 01:22:01 UTC
From: <rochep@...>
Topic: 20262 Message: 20271

I just replaced the 60 mfd with a 47 uF 350V cap a few days ago (and also the other little 10 uF cap) and tied them under the chassis. Plenty of room. I assumed 47 uF would work as well at 60 uF for this (it IS within 20%, after all).

paul

[Non-text portions of this message have been removed]

20272. Re: [DrakeRadio] TR-4cw

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 01:45:22 UTC
From: Garey Barrell
Topic: 20266 Message: 20272

David -

OK. When you switch to RCVR, you are disconnecting the 'safety' RFC to ground from the TR-4C
receiver input. You're also disconnecting whatever load is connected to the transceiver ANT jack from the receiver input. I suspect if you put a signal generator on the ANT input, you'll
find that the TR-4C receiver is just fine.

Have you listened to signals on 10M?? Compared s/n with another receiver??

I can't get too excited until you put a KNOWN signal level on the input so we only have to worry
about the receiver sensitivity and NOT what the Calibrator efficiency might be..... I assume
you've swapped the tube in the Calibrator?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
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>
> David, KX7C
>
>

20273. Re: [DrakeRadio] What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 01:59:51 UTC
From: Garey Barrell
Topic: 20235 Message: 20273

That would be R168, part of the S-Meter bridge, supplies B+ to the (!) 6AQ5A.

Have you measured the DC voltages on the 6AQ5A YET????

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike Bryce wrote:
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>>>> The low level audio stages run off of the same 17.5 V bus from the 10k
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>>>>> I shut everything down and went to bed.
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>>
>

20274. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 02:11:05 UTC
From: Garey Barrell
Topic: 20262 Message: 20274

Be interested how that works out..... this is the power supply decoupling for the low level
mic stages, and controls the amount of 'backwave' you might hear on your SIDETONE. Might also
upset the VOX for CW???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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rochep@... wrote:
> I just replaced the 60 mfd with a 47 uF 350V cap a few days ago (and also the other little 10 uF cap) and tied them under the chassis. Plenty of room. I assumed 47 uF would work as well at 60 uF for this (it IS within 20%, after all).
>
> paul
>
>

20275. Re: What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 09:52:43 UTC
From: <f3wt@...>
Topic: 20235 Message: 20275

Hi all
I roger too. That switch keeps toggling back and forth when moving the rig from one place to the other and not "locking" it with that slug I still have nearby!
When that switch is set to TCVR, the RX went up like magic.
That receiver is very very sensitive and worth fitting. Got in ZL3XDJ cw last night like a little bell, almost no noise. Great- If I could only emitt beyond qrp! (And my O1 is kaputt as well on the TX side , waiting to get repaired)
I think the quality of the TR4 receiver part (w. some documented vy minor mods) - yes compared to my O1- is worth my effort fixing now the transmitter part of my great sounding idle TR4.
BTW: While I run only QRP w. it , and only on 40 and 20M it would do , I discovering the fun of reach with only 5 watts .
But with all PA 3 finals in there which wouldn't give more for now, even after changing them, I want now to bring the emitter up to nominal.
To start with here is a first symptom :
When I try to set the (negative) bias voltage on my (Heath-) refurbished AC4R PS
as soon as idle plate current reaches the idle current recommended of .1A, the TX relay jumps into ON state.
After sorting that out (measuring the -60V, etc..), etc..
Where should I continue with:
- realign , balance, neutralizing PA
- check voltages and HF levels on drivers, etc..

Later on : I want to reduce the pitch also to say 500Hz. How many capacitors in the RC - phase-shift oscillator t.b. changed (all 3?)- Values half their nominal value?(as 1/RC would call for)..

Finally, going back to the receiver part, I have an left unused 9000.75 kHz 8 - pole CW filter from my Orion1 I want to insert/switch in w. relays in lieu of the USB/LSB former "can " in CW. As the CW signal passes the upper side of 9 mHz I reckon that filter should do it. Only thing left is impedance matching: The " can" is fed with coax terminated on both ends w. 450 Ohms resistor . So I infer that that is abt the I/O impedance. My O1 has 50 Ohms I/O. Hence I think a matching w. a broad band 1/9 unun should do the trick. Right?
.. .
Any thoughts on this would be vy welcome.
Thank you vy much for now.
73
Pierre, F3WT.

[Non-text portions of this message have been removed]

20276. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 10:29:01 UTC
From: <f3wt@...>
Topic: 20262 Message: 20276

Garey, referring to my previous rather lengthy post especially on putting in a CW - filter you may want to advise to exchange such a rig with a TR4CW/rit - do you?
73
Pierre, F3WT.

[Non-text portions of this message have been removed]

20277. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 11:19:06 UTC
From: <rochep@...>
Topic: 20262 Message: 20277

Garey, I "guess" it worked out fine. If you remember, I was hearing the backwave CONTINUOUSLY while the T/R relay was on Transmit (even between dots and dashes). Replaced with the 47 uF cap, all that backwave went away. I DID find last night that my VOX DELAY settings seemed to have shifted a bit, but a little re-adjustment and all good. I thought values plus/minus 20% were fine for replacements?

paul

[Non-text portions of this message have been removed]

20278. Re: [DrakeRadio] Re: What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 14:37:03 UTC
From: Garey Barrell
Topic: 20235 Message: 20278

Hello Pierre -

I'm not sure I understand your BIAS setting problem.... The relay must ALREADY be pulled in to
set the IDLE current. There should be NO IDLE current until the relay pulls in.

The '80 and 20M only' problem is related to the BAND (crystal) oscillator. Is this on both receive and transmit, or just one? V1, V3 and V4 are the stages involved in operation on 'other' bands.

There are eight different versions of the TR-4, and various filter impedances are used. Early
ones are 2k, later ones are 470 ohm impedance. Check R16 and R77, they are the filter in and
out impedance.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

f3wt@... wrote:
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> Thank you vy much for now.
> 73
> Pierre, F3WT.
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20279. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 14:39:46 UTC
From: Garey Barrell
Topic: 20262 Message: 20279

Pierre -

Certainly a CwRIT would be simpler! :-) The RIT is certainly helpful on CW, and makes the TR-4C at least 'usable' on CW. The B or C-Line twins would be a better choice for CW operation
if you change rigs......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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> 73
> Pierre, F3WT.
>
>

20280. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 14:48:01 UTC
From: Garey Barrell
Topic: 20262 Message: 20280

Paul -

I thought I remembered that! :-) Electrolytics were always +/- 20% at best. Early 60's they were still mostly +80/-20%. The question here is whether 47 uF is 'enough' decoupling between
those stages. 'Backwave' on the SIDETONE is a common result of high ESR or low capacitance in
this cap. The basic problem, aside from power supply ripple, is the audio tone being coupled
'around' D8, which is what 'keys' the SIDETONE. Since the SIDETONE is what holds the VOX 'in'
between code elements, if only a little SIDETONE 'leaks' around it may get to the VOX amp and
cause the relay to hold in a little longer.

Otherwise, 47 uF is ok. Perhaps 60 uF was a 'minimal' choice, since most caps were out of spec
on the high side!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

rochep@... wrote:
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> paul
>
>

20281. Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 22:49:08 UTC
From: <rochep@...>
Topic: 20281 Message: 20281

I have posted photos of this in the PHOTOS section. I want to polish the bezel/dial skirt of my T4XC, but it seems some sort of "protectant/varnish" or something is "peeling" off. What is this stuff, how do I remove it to polish this to make it look nice? It is a clear-coat varnish? Any ideas?

paul

[Non-text portions of this message have been removed]

20282. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 23:50:03 UTC
From: Steve Wedge
Topic: 20281 Message: 20282

Try lacquer thinner.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 21, 2014, at 6:49 PM, <rochep@comcast.net> wrote:
>
> I have posted photos of this in the PHOTOS section. I want to polish the bezel/dial skirt of my T4XC, but it seems some sort of "protectant/varnish" or something is "peeling" off. What is this stuff, how do I remove it to polish this to make it look nice? It is a clear-coat varnish? Any ideas?
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20283. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-21 23:51:44 UTC
From: Barry
Topic: 20281 Message: 20283

Don't get it on the plastic knob.

Barry - N4BUQ

----- Original Message -----
> From: "Steve Wedge" <w1es1982@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, April 21, 2014 6:50:03 PM
> Subject: Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?
>
> Try lacquer thinner.
>
> Steve Wedge, W1ES/4
>
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> > paul
> >
> > [Non-text portions of this message have been removed]
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20284. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 02:13:39 UTC
From: Garey Barrell
Topic: 20281 Message: 20284

Paul -

Probably dipped in clear lacquer. Any stripper you use will take of the black printing as well.. You could spray it with Krylon Clear, 'matte' finish or 'flat'. It wasn't shiny to begin with.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>
>

20285. K1 relay & board install on TR-4(31355)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 03:28:34 UTC
From: James Scribner
Topic: 20285 Message: 20285

Hello to the Group,

Installed the K1 board in order to install plugin relay and notice there is not a provision for RFC 8 at C90. Would it be acceptable to mount it beneath chassis at C90 in *series* with 4 other connects there already? I am assuming the choke was necessary in first place so would like to reinstall in a back functional manner.

Secondly the relay pull-in coil is only 2.5Kohm. From what I researched here on the Group, it seems it is need of more resistance. Would another 2.5Kohm in series at C92 (again on bottom of chassis) be an appropriate fix as far as *resistance* and *location*?

Have board installed and spent hours ohmming it out w/spare relay. looks at this point to be a good replacement except the instruction need a bit more polish which I hope to attain here.
Thanks in advance and hope everyone had a great Easter.
W5SWM
Jim

[Non-text portions of this message have been removed]

20286. Re: [DrakeRadio] K1 relay board TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 11:45:43 UTC
From: Chgypsy@...
Topic: 20286 Message: 20286

Hello all,

TR4..... K1 board in order to install plugin relay
FWIW.....I have a board (new) and instructions that I will not be using,
make me an offer. Carl WD8NHK

[Non-text portions of this message have been removed]

20287. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 12:42:58 UTC
From: <rochep@...>
Topic: 20281 Message: 20287

Put the danged-thing in paint stripper this morning for 30 minutes... NOTHIN removed! Maybe it is NOT some sort of lacquer. Last night I used lacquer thinner, also did nothing. I don't want to scratch the thing too much, could one use 0000 steel wool and then "sand" smooth with fine sandpaper? There are no numbers on this, just the silver skirt.

paul

[Non-text portions of this message have been removed]

20288. RE: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:04:04 UTC
From: Doug Coffman
Topic: 20281 Message: 20288

Paul,

Buff it off with the finest steel wool you can get. This way you will remove the old clear coat and polish the metal at the same time. When you go to clear coat it there will be no chemical residue to remove, just finger print oil and dust.

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of rochep@...
Sent: Tuesday, April 22, 2014 8:43 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Put the danged-thing in paint stripper this morning for 30 minutes... NOTHIN removed! Maybe it is NOT some sort of lacquer. Last night I used lacquer thinner, also did nothing. I don't want to scratch the thing too much, could one use 0000 steel wool and then "sand" smooth with fine sandpaper? There are no numbers on this, just the silver skirt.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20289. RE: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:08:11 UTC
From: Doug Coffman
Topic: 20281 Message: 20289

When I want to remove stubborn pain, I use a product called Aircraft Remover. It comes in a spray can and I haven't tried it on anything it wouldn't bite into. I personally don't use strippers unless I have a specific reason to thought.

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of rochep@...
Sent: Tuesday, April 22, 2014 8:43 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Put the danged-thing in paint stripper this morning for 30 minutes... NOTHIN removed! Maybe it is NOT some sort of lacquer. Last night I used lacquer thinner, also did nothing. I don't want to scratch the thing too much, could one use 0000 steel wool and then "sand" smooth with fine sandpaper? There are no numbers on this, just the silver skirt.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20290. RE: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:10:06 UTC
From: Doug Coffman
Topic: 20281 Message: 20290

Using wet sand paper with soapy water will probably still leave some scratching. Buffing with steel wool should product the same look as it had before you started.

Doug - N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of rochep@...
Sent: Tuesday, April 22, 2014 8:43 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Put the danged-thing in paint stripper this morning for 30 minutes... NOTHIN removed! Maybe it is NOT some sort of lacquer. Last night I used lacquer thinner, also did nothing. I don't want to scratch the thing too much, could one use 0000 steel wool and then "sand" smooth with fine sandpaper? There are no numbers on this, just the silver skirt.

paul

[Non-text portions of this message have been removed]

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20291. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:16:24 UTC
From: Bernie
Topic: 20281 Message: 20291

Paul.
4-ought steel wool would be OK, then polish off with either 400 grit wet-dry emery-cloth of one of those green & yellow plastic-nylon sponges with a tiny bit of toothpast. Or, of you have a Dremel tool, you could try a soft buffing wheel at low-speed with a bit of jewler's rouge. Good luck, keep us posted.

Bernie in ND
WDØGMD

----- Original Message -----
From: rochep@...
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 22, 2014 7:42 AM
Subject: Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Put the danged-thing in paint stripper this morning for 30 minutes... NOTHIN removed! Maybe it is NOT some sort of lacquer. Last night I used lacquer thinner, also did nothing. I don't want to scratch the thing too much, could one use 0000 steel wool and then "sand" smooth with fine sandpaper? There are no numbers on this, just the silver skirt.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20292. Re: Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:19:20 UTC
From: <dj_coffman@...>
Topic: 20281 Message: 20292

Paul,

Most likely you will want to polish the metal when you remove the clear coat. I use the finest steel wool I can get and buff the clear coat off and then polish the metal. You could use aluminum polish, steel polish or just about anything you want. I use steel wool only then there is no residue in the metal when it is recoated with clear coat.

Doug - N9XTF

[Non-text portions of this message have been removed]

20293. NEW Products!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:24:34 UTC
From: Garey Barrell
Topic: 20293 Message: 20293

Jeff at Harbach Electronics has announced a couple of new Drake products!

Harbach Electronics Home Page Press Release

*19 April 2014: In response to customer requests, I am now pleased to announce availability of
2 new kits, the RA-TR4 and the RA-T4X/B. These are plug-in relay adapter kits for the Drake TR-4 and T-4X/T-4XB radios. These kits replace the old chassis-mounted T/R relay with a small
PC board and new plug-in relay. All components are included in the kits including a new relay,
socket, PC board, wire, spaghetti tubing and complete installation instructions. They are available in the Drake products section. I will also have them at Dayton.*

http://harbachelectronics.com/shop/drake/ra-tr4-plug-in-relay-adapter-kit/

http://harbachelectronics.com/shop/drake/ra-t4xb-plug-in-relay-adapter-kit/

These have been unavailable for a while now, and really make the upgrade to a plug-in relay easy
to do. We are fortunate to have people willing to supply these specialty products, and should
support them as much as we can.

--
73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20294. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:34:09 UTC
From: Steve Wedge
Topic: 20281 Message: 20294

The skirt on the T-4XC doesn't have printing on it.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 21, 2014, at 10:13 PM, Garey Barrell <k4oah@...> wrote:
>
> Paul -
>
> Probably dipped in clear lacquer. Any stripper you use will take of the black printing as
> well.. You could spray it with Krylon Clear, 'matte' finish or 'flat'. It wasn't shiny to
> begin with.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> rochep@... wrote:
> > I have posted photos of this in the PHOTOS section. I want to polish the bezel/dial
skirt of my T4XC, but it seems some sort of "protectant/varnish" or something is "peeling"
off. What is this stuff, how do I remove it to polish this to make it look nice? It is a
clear-coat varnish? Any ideas?
> >
> > paul
> >
> >
>
>

[Non-text portions of this message have been removed]

20295. Re: [DrakeRadio] K1 relay & board install on TR-4(31355)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:39:17 UTC
From: Garey Barrell
Topic: 20285 Message: 20295

Jim -

The RFC7 is there to ground the RF OUTPUT for DC (should the Plate coupling capacitor short) and
to bleed off static charges built up on the antenna due to nearby lightning and electrostatic
charges. It should be connected directly to the RF OUTPUT connector and to the frame of the LOAD capacitor or other nearby CHASSIS ground.

A series resistor _1.5k_ @ 1W should be placed in series with the relay coil. Physical location is not critical.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

James Scribner wrote:
> Hello to the Group,
>
> Installed the K1 board in order to install plugin relay and notice there is
> not a provision for RFC 8 at C90. Would it be acceptable to mount it
> beneath chassis at C90 in *series* with 4 other connects there already? I
> am assuming the choke was necessary in first place so would like to
> reinstall in a back functional manner.
>
> Secondly the relay pull-in coil is only 2.5Kohm. From what I researched
> here on the Group, it seems it is need of more resistance. Would another
> 2.5Kohm in series at C92 (again on bottom of chassis) be an appropriate fix
> as far as *resistance* and *location*?
>
> Have board installed and spent hours ohmming it out w/spare relay. looks at
> this point to be a good replacement except the instruction need a bit more
> polish which I hope to attain here.
> Thanks in advance and hope everyone had a great Easter.
> W5SWM
> Jim
>
>

20296. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:39:40 UTC
From: Steve Wedge
Topic: 20281 Message: 20296

You could try a screw and bolt and chuck it into a drill press to steel wool it.

I have rejuvenated B--Line knobs using a drill press.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 22, 2014, at 9:34 AM, Steve Wedge <w1es1982@...> wrote:
>
> The skirt on the T-4XC doesn't have printing on it.
>
> Steve Wedge, W1ES/4
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
> > On Apr 21, 2014, at 10:13 PM, Garey Barrell <k4oah@...m> wrote:
> >
> > Paul -
> >
> > Probably dipped in clear lacquer. Any stripper you use will take of the black printing as
> > well.. You could spray it with Krylon Clear, 'matte' finish or 'flat'. It wasn't shiny to
> > begin with.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
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> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > rochep@... wrote:
> > > I have posted photos of this in the PHOTOS section. I want to polish the bezel/dial skirt of my T4XC, but it seems some sort of "protectant/varnish" or something is "peeling" off. What is this stuff, how do I remove it to polish this to make it look nice? It is a clear-coat varnish? Any ideas?
> > >
> > > paul
> > >
> > >
> >
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>
> [Non-text portions of this message have been removed]

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>

[Non-text portions of this message have been removed]

20297. Re: What did I do to warrant this? Now a dead TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 13:46:45 UTC
From: <f3wt@...>
Topic: 20235 Message: 20297

Thank you vy much Garey! I will check pt #1 and #2.
Pt#3 is , as I think I said, 450 Ohms. So this is probably the I/O-impedances I should match to.
Good for now.
Will be back.
vy 73
Pierre, F3WT

[Non-text portions of this message have been removed]

20298. Re: [DrakeRadio] K1 relay & board install on TR-4(31355)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 19:18:04 UTC
From: James Scribner
Topic: 20285 Message: 20298

Garey
Thank you for the info on the proper resistance for the coil. Should be easy to incorporate it.

The inductor/choke in question was RFC8 not RFC7. Am familiar with the P.A. bleeder. Actually broken off when I received radio and used it that way for a week. The RFC8 is the one I was asking about as in would go between C90 and the Pin7 on new relay. Looks to me like open on Rec and grounded thru Pin6 (new relay) on Transmit.

73, Jim-W5SWM

[Non-text portions of this message have been removed]

20299. Re: [DrakeRadio] K1 relay & board install on TR-4(31355)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 20:02:07 UTC
From: Garey Barrell
Topic: 20285 Message: 20299

Jim -

RFC8 is no longer used. They don't make that very clear in the instructions! :-)

That is the XMTR CATH line, that grounds the Cathode circuits of the Xmit, Xmit Mixer, Driver
and PA stages in transmit. I think there just wasn't any way to get it in there physically. It's only 'hot' when the transmitter keyed, and is grounded by the relay so apparently not a
problem There is a very short PC trace between C90 and the relay socket. Save it for another
use! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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James Scribner wrote:
> Garey
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> easy to incorporate it.
>
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> bleeder. Actually broken off when I received radio and used it that way for
> a week. The RFC8 is the one I was asking about as in would go between C90
> and the Pin7 on new relay. Looks to me like open on Rec and grounded thru
> Pin6 (new relay) on Transmit.
>
> 73, Jim-W5SWM
>
>

20300. Re: [DrakeRadio] K1 relay & board install on TR-4(31355)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 20:39:45 UTC
From: James Scribner
Topic: 20285 Message: 20300

Garey,
Thanks for speedy response and the valuable service you provide to the Group. Especially the CD's I might add. What an accumulation of valuable information! Enjoy and use mine all the time. Now back to getting my TR-4 on the Boat Anchors Unlimited Net every Wed. nite on 3.870MHz @ 1930hrs CST.

[Non-text portions of this message have been removed]

20301. test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 21:32:29 UTC
From: David Nichols
Topic: 20301 Message: 20301

SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE I
NEED TO GET A LONGER HOOK FOR MY TEST LEAD. SO DID THE TEST SOCKET CAUSE THIS OR DID I JUST ROLL SOMETHING AROUND AND MAKE A SHORT?

DAVID, KX7C

[Non-text portions of this message have been removed]

20302. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-22 22:44:25 UTC
From: <rochep@...>
Topic: 20281 Message: 20302

0000 steel wool and some elbow grease removed the stuff. Now some Maas polish and that will be fine. Don't think I will bother with the clear-coat lacquer, save future generations the same problem!!! Thanks.

paul

[Non-text portions of this message have been removed]

20303. Drive to the finals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 01:21:52 UTC
From: Robert Logan
Topic: 20303 Message: 20303

Does anyone know about how many watts (or less) the 12BY7A driver properly aligned should deliver to the finals in a T-4XC at full output? Bob NZ5A

Sent from my iPhone

20304. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 01:42:23 UTC
From: Garey Barrell
Topic: 20301 Message: 20304

The fuse is for the filament string. You've shorted a filament pin somewhere.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE I
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>
> DAVID, KX7C
>
>

20305. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 01:51:21 UTC
From: Doug Coffman
Topic: 20301 Message: 20305

David,

I'm sure you already know this but I figured I'd throw it in anyway.

You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.

N9XTF

Sent from my iPhone

> On Apr 22, 2014, at 21:42, Garey Barrell <k4oah@...> wrote:
>
> The fuse is for the filament string. You've shorted a filament pin somewhere.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > DAVID, KX7C
> >
> >
>
>

[Non-text portions of this message have been removed]

20306. Re: [DrakeRadio] Drive to the finals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 01:58:12 UTC
From: Garey Barrell
Topic: 20303 Message: 20306

You should see at least 150-200 V p-p into what is essentially an open circuit. Actually it's
about 30 k or so via the BIAS supply, so probably a watt or two in 'losses'. There should be NO
'power' involved as the PA is in AB1, with ALC to throttle back the drive if ANY Grid current
(power) is drawn.

BE CAREFUL if you are using a scope. Most probes will not handle that sort of AC voltage!! Just holding the probe in the general area of the PA Grid should give you PLENTY of signal on a
scope.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Robert Logan wrote:
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>
>

20307. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 02:00:01 UTC
From: Garey Barrell
Topic: 20301 Message: 20307

Good point Doug.... The dial lamp terminals are usually loose, and can easily rotate around and
contact the reflector!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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> David,
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> I'm sure you already know this but I figured I'd throw it in anyway.
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> You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.
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> N9XTF
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>> David Nichols wrote:
>>> SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE I

>>> NEED TO GET A LONGER HOOK FOR MY TEST LEAD. SO DID THE TEST SOCKET CAUSE THIS OR DID I JUST ROLL SOMETHING AROUND AND MAKE A SHORT?
>>>
>>> DAVID, KX7C
>>>

20308. Re: [DrakeRadio] Drive to the finals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 02:49:33 UTC
From: Jim Shorney
Topic: 20303 Message: 20308

That's a fact. Modern probes with skinny cable can arc over faster than you can say "Oh sh*t!".

73

-Jim (don't ask me how I know that)
NU0C

On Tue, 22 Apr 2014 21:58:12 -0400, Garey Barrell wrote:

>BE CAREFUL if you are using a scope. Most probes will not handle that sort of AC voltage!!

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

20309. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 03:31:42 UTC
From: David Nichols
Topic: 20301 Message: 20309

Thanks for the suggestions, I had not checked the bulbs but have now. I have not found the problem but I have checked about everything but the problem. Since I was doing the alignment I know exactly which tube I was on at the time. Whatever it is, is making very good contact. Im using my continuity meter as I go along with one side on the fuse and the other to ground. I figure if I do break the contact it will shut the meter up.. So far it looks like I better get some new batteries ready for the meter. I bought this TR-4cw to play with but this aint the playing I had in mind. I have an R-4B coming in tomorrow and wanted to get to checking it out. Maybe I will, I might need to give this TR-4cw a rest.
David, KX7C

From: Doug Coffman <dj_coffman@...>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, April 22, 2014 6:51 PM
Subject: Re: [DrakeRadio] test socket during alignment

David,

I'm sure you already know this but I figured I'd throw it in anyway.

You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.

N9XTF

Sent from my iPhone

> On Apr 22, 2014, at 21:42, Garey Barrell <k4oah@...> wrote:
>
> The fuse is for the filament string. You've shorted a filament pin somewhere.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols wrote:
> > SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED

THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE
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> > NEED TO GET A LONGER HOOK FOR MY TEST LEAD. SO DID THE TEST SOCKET CAUSE THIS OR DID I JUST ROLL SOMETHING AROUND AND MAKE A SHORT?
> >
> > DAVID, KX7C
> >
> >
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20310. Re: [DrakeRadio] Removing "finish" from T4XC bezel/skirt?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 04:10:08 UTC
From: Richard Knoppow
Topic: 20281 Message: 20310

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 21, 2014 3:49 PM
Subject: [DrakeRadio] Removing "finish" from T4XC
bezel/skirt?

>I have posted photos of this in the PHOTOS section. I want
>to polish the bezel/dial skirt of my T4XC, but it seems
>some sort of "protectant/varnish" or something is "peeling"
>off. What is this stuff, how do I remove it to polish this
>to make it look nice? It is a clear-coat varnish? Any
>ideas?
>
> paul

I think this is likely oxidation of whatever material
the dial is plated with. I don't think any kind of solvent
will take it off. The first thing to try is tooth paste.
Toothpaste is a mild abrasive and will clean all sorts of
things without taking much metal off. Next stronger is a
polish with a mild reducing agent in it. I used Barkeeper's
Friend or Zud, which are identical. These have a little
oxalic acid in them. I find they are milder and more
controllable than Naval Jelly. Another similar chemical
reducer is Tarn-X. All of these must be used a little at a
time. See what they do and use the toothpaste to take off
any residue they leave.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20311. C-Line Consile

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 12:16:44 UTC
From: <dj_coffman@...>
Topic: 20311 Message: 20311

Does anyone have a Drake C-Line Console that is excess to their needs that they would consider selling? Thanks, Doug N9XTF Dcoffman at iquest dot net

[Non-text portions of this message have been removed]

20312. Re: C-Line Consile

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 12:17:53 UTC
From: <dj_coffman@...>
Topic: 20311 Message: 20312

Dog gone IPhone. C- Line Console, ignore misspelling.

[Non-text portions of this message have been removed]

20313. TR-4C - Alignment Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 12:19:04 UTC
From: Steve VK2SJA
Topic: 20138 Message: 20313

Hi Garey/All,

Well I'm back from vacation with a couple of days off work. So I'm looking forward to finalizing the alignment of my TR-4C and hopefully getting her on air. Spent today modifying a home-brew wet dummy load (Canteena) to give it power measurment capability so I can accurately measure high power for the first time.

I also installed a 47uF electrolytic capacitor across the back of the plate meter. This has tamed the meter ping-pong bounce. But the smallest voltage rating I could find was 25 volts. Is this going to be a problem long term? Should I try and source a 10v or 16v one?

After installing this cap the plate meter at idle was reading significantly lower than before. It was a tiny fraction high before but I just noted this and left R13a alone. I must profess that I don't understand why it would read low. If anything I would have thought the cap would make it read somewhat higher? Anyway, I then verified 100mA across R45. Then I replaced R13a (was 33 ohms from memory) with a 100 ohm multi-turn PCB pot. This allowed me to set the meter correctly so that it reads bang on .1 for 100mA. Tested meter in tune-up and all appears normal. Question: Is there any reason why I shouldn't just leave the pot in place?

Oh, and I also wired up and tested a microphone. So I feel like I'm on the home straight at last.

But I have yet more questions. As I'm thinking it might be best to re-do all the alignments now that the "faults" have been corrected.

Q1. Alignment procedure starts with the disconnect of the plate and screen supplies so as to essentially disable the final P.A. section. I now understand that this is required so the the final tank circuit resonance (or non-resonance more likely) does not impact the reciever alignments. How critical is this? And which specific alignments are affected? I can't imagine that the crystal calibrator or the 9Mhz oscillator would be impacted by tank resonance?

Q2. In alignment steps 5-16 "Mixer and RF Alignment". Where you adjust for "maximum plate current" is it acceptable to adjust instead for "maximum RF power out on an external watt meter"? Or are they in fact two different things?

Q3. I think somebody else was recently talking about this same issue on a TR-4X but I don't know if there was any resolution. My S-Meter drives into negative territory during the valve warm-up period. i.e. during this period the voltage across this meter is reverse polarity for a period.

Round about the time that you get RX audio heard in the speaker it would pop back up to S1 and from then on behave normally. I'm not sure if this behaviour should be considered a "fault" or not? It never bothered me before but after physically moving the meters and installing the cap on the Plate meter today the S-Meter has started "sticking" in the maximum negative travel position. Such that I need to use the S-Meter Zero adjustment control to drive it hard into positive territory to un-stick the movement and the adjust it back down to S1 again. Trivial but most annoying. So is the initial reverse voltage condition during warm-up a fault needing correction? Can I just add a diode into the S-Meter circuit right at the meter so that it can only see forward voltages? If so what sort of diode and ratings?

Thanks again in advance (to everyone but especially Garey).

I'm getting very close now!

73, Steve

20314. Re: [DrakeRadio] TR-4C - Alignment Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 14:48:10 UTC
From: Garey Barrell
Topic: 20138 Message: 20314

Steve -

Welcome back to the 'real world'!!

See below!

Steve VK2SJA wrote:
> Hi Garey/All,
>
> Well I'm back from vacation with a couple of days off work. So I'm looking
> forward to finalizing the alignment of my TR-4C and hopefully getting her
> on air. Spent today modifying a home-brew wet dummy load (Canteena) to
> give it power measurment capability so I can accurately measure high power
> for the first time.

Good to have!
>
> I also installed a 47uF electrolytic capacitor across the back of the
> plate meter. This has tamed the meter ping-pong bounce. But the smallest
> voltage rating I could find was 25 volts. Is this going to be a problem
> long term? Should I try and source a 10v or 16v one?

This appears to be a failure mode of the meter. I have wondered whether the manufacturer put
some sort of silicone grease or other on the bearings to damp this motion. MOST do NOT exhibit
this characteristic, and I would think that high temperatures and hours of use could affect it,
but it might be just another manufacturing variation. The 'cheap' meters with 'vane' type movements were always jerky, (see early Heathkit and WRL transmitters!,) and 'moving coil' meters were more 'sedate'..... The meter only sees millivolts, so really not significant whether the cap is 10 or 25V rated. Dielectric formation 'could' be a problem with either, but
I'm not aware of any 1V rated electrolytic caps!
>
> After installing this cap the plate meter at idle was reading
> significantly lower than before. It was a tiny fraction high before but I
> just noted this and left R13a alone. I must profess that I don't
> understand why it would read low. If anything I would have thought the cap
> would make it read somewhat higher? Anyway, I then verified 100mA across
> R45. Then I replaced R13a (was 33 ohms from memory) with a 100 ohm
> multi-turn PCB pot. This allowed me to set the meter correctly so that it
> reads bang on .1 for 100mA. Tested meter in tune-up and all appears
> normal. Question: Is there any reason why I shouldn't just leave the pot
> in place?

I suspect that the lower reading is leakage in the cap. (Possibly as a result of dielectric 'non-formation?) Your 33 ohms is about right for R13A. Typical values here are in the 20 - 60
ohm range. The meter is actually a voltmeter, measuring the voltage developed across R45. With
a 2 ohm R45, 600 mA develops 1.2 V. So we need a 1.2V DC full scale meter. The basic meter is
5 mA full scale with an internal resistance of 200 ohms. 1.2 V across 200 ohms is 6 mA, so we
need a series resistor of about 40 ohms. The meter internal resistance varies slightly, therefore the need for selection. Nothing wrong with a trim-pot, as long as it isn't subject to
inadvertent bumps.

>
> Oh, and I also wired up and tested a microphone. So I feel like I'm on the
> home straight at last.

Sorry to hear that! (I'm 95% CW!) :-)
>
> But I have yet more questions. As I'm thinking it might be best to re-do
> all the alignments now that the "faults" have been corrected.
>
> Q1. Alignment procedure starts with the disconnect of the plate and screen
> supplies so as to essentially disable the final P.A. section. I now
> understand that this is required so the the final tank circuit resonance
> (or non-resonance more likely) does not impact the reciever alignments.
> How critical is this? And which specific alignments are affected? I can't
> imagine that the crystal calibrator or the 9Mhz oscillator would be
> impacted by tank resonance?

We're not worried about alignment impacts as much as having the PA sitting at non-resonance while you are twiddling transformer adjustments. The PA is really a 'sub-assembly' and the entire radio would work just fine if you removed the PA and made the Driver the (QRP) transmitter. So you can work on / adjust the entire radio with the PA disabled. I'm not sure
why Drake specified removing Screen AND Plate voltages. Removing ONLY the Screen voltage to the
PA essentially disables it completely. That's all I do. The Pi-Net DOES affect the receiver,
it's basically a bandpass filter at the front end of the receiver, so both PLATE and LOAD controls should be adjusted for maximum signal when receiver tests involve the ANTENNA input.

>
> Q2. In alignment steps 5-16 "Mixer and RF Alignment". Where you adjust for
> "maximum plate current" is it acceptable to adjust instead for "maximum RF
> power out on an external watt meter"? Or are they in fact two different
> things?

For this purpose they are the same. IF the PA neutralization is not correct the two will not be

at the same point, but for alignment you are only looking for the peak, so either works fine. I
prefer to work with a scope on the Grids of the PA for these adjustments, with the PA disabled
as above.

>
> Q3. I think somebody else was recently talking about this same issue on a
> TR-4X but I don't know if there was any resolution. My S-Meter drives
> into negative territory during the valve warm-up period. i.e. during this
> period the voltage across this meter is reverse polarity for a period.
> Round about the time that you get RX audio heard in the speaker it would
> pop back up to S1 and from then on behave normally. I'm not sure if this
> behaviour should be considered a "fault" or not? It never bothered me
> before but after physically moving the meters and installing the cap on
> the Plate meter today the S-Meter has started "sticking" in the maximum
> negative travel position. Such that I need to use the S-Meter Zero
> adjustment control to drive it hard into positive territory to un-stick
> the movement and the adjust it back down to S1 again. Trivial but most
> annoying. So is the initial reverse voltage condition during warm-up a
> fault needing correction? Can I just add a diode into the S-Meter circuit
> right at the meter so that it can only see forward voltages? If so what
> sort of diode and ratings?

Just out of curiosity, do you have a 6AQ5 or a 6AQ5A tube at V17. The 'reverse S-Meter' problem
is the result of the bridge currents being unequal during warmup. If V4, V11 and V15 draw their
expected current BEFORE V17, the meter will deflect negative. Conversely, if V17 reaches its
current first, the meter will read positive. Most small receiving tube are designed to reach
operating temperature in ~11 seconds. This is a holdover from series filament strings in TV
sets with 25 tubes in them. Since the series resistance goes UP as they heat, if one or more is
slower or faster than the others, the voltage distribution of the string is disrupted. This
prevents some tube(s) receiving excessive filament voltage and various HV supplies wandering all
over everywhere as each tube draws its design current. The "A" at the end of most small
receiving tubes means that it meets the ~11 second warm-up specification. But I digress!!
:-) Anything that slows V17 reaching it's steady-state design current will cause the meter to
go negative. It could be as simple as a 'non-A' tube at V17, or a filament pin in the tube
socket, or C135 with a high ESR, or ....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20315. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 15:01:12 UTC
From: Garey Barrell
Topic: 20301 Message: 20315

David -

It has to be a short from the filament 'hot' line to the chassis. The fuse is in the 'hot' side
as well, so all those parallel tube heaters to ground are going to read a very low resistance to
ground, and your continuity tester may not be able to tell the difference. Have you pulled the
'adapter'?? They can develop internal shorts. Something is connecting the filament line to chassis with essentially zero ohms.

Pin 2 of V6 is the Grid, not this problem. Pins 4 & 5 of V6 are grounded, Pin 6 is 'hot'.

V3 filament pins are 4 & 5, one should be grounded, the other 'hot'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Thanks for the suggestions, I had not checked the bulbs but have now. I have not found the problem but I have checked about everything but the problem. Since I was doing the alignment I know exactly which tube I was on at the time. Whatever it is, is making very good contact. Im using my continuity meter as I go along with one side on the fuse and the other to ground. I figure if I do break the contact it will shut the meter up.. So far it looks like I better get some new batteries ready for the meter. I bought this TR-4cw to play with but this aint the playing I had in mind. I have an R-4B coming in tomorrow and wanted to get to checking it out. Maybe I will, I might need to give this TR-4cw a rest.
> David, KX7C
>
>
>
>
> _____
> From: Doug Coffman <dj_coffman@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, April 22, 2014 6:51 PM
> Subject: Re: [DrakeRadio] test socket during alignment
>
>
>
>
> David,

>
> I'm sure you already know this but I figured I'd throw it in anyway.
>
> You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.
>
> N9XTF
>
> Sent from my iPhone
>
>> On Apr 22, 2014, at 21:42, Garey Barrell <k4oah@...> wrote:
>>
>> The fuse is for the filament string. You've shorted a filament pin somewhere.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>>
>> David Nichols wrote:
>>> SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE
> I
>>> NEED TO GET A LONGER HOOK FOR MY TEST LEAD. SO DID THE TEST SOCKET CAUSE THIS OR DID I JUST ROLL SOMETHING AROUND AND MAKE A SHORT?
>>>
>>> DAVID, KX7C
>>>
>>>

20316. The tube did the trick!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 15:21:59 UTC
From: <kk.n8vkx@...>
Topic: 20316 Message: 20316

Thank you, Gary. I was able to order some replacement tubes from one of the links you sent me. It was the 12AV6, Now I have full side tone and tuning capability I hadn't had before. Now I need to do some alignment with the carrier balance, running too much plate current. I have the manual and I'll follow the instructions as soon as I get the time.
Dayton Hamvention is coming up so I would like to get the radio going and get it off the workbench, 'cause I never know what "treasures" I may bring home!

[Non-text portions of this message have been removed]

20317. Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 17:45:16 UTC
From: <rochep@...>
Topic: 20317 Message: 20317

I know we are supposed to set our no-load bias to 70 mA, but my meter does NOT read ZERO mA when powered off, it is sitting up at about 20 mA. Should I therefore adjust my bias to 90 mA (taking the 20 mA as a "zero", or not worry about it? I don't see how to adjust the meter to zero (like I can in my R4A receiver).

paul

[Non-text portions of this message have been removed]

20318. Re: [DrakeRadio] Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:11:11 UTC
From: Garey Barrell
Topic: 20317 Message: 20318

Paul -

Have you 'calibrated' your PLATE meter at 70 mA?? If so, you can just set it to 70 mA. If you
haven't, you should. That is the most critical meter setting in the T-4X(any).

There have been a couple of threads regarding zero'ing these meters that you might want to look
up. I think one guy just found a spot where he could glue on a small magnet to zero his meter.
I'm not sure that's 'kosher' since it will no doubt affect the linearity of the meter. But all
things considered, the meter is really only critical for setting the 70 mA current. The rest of
the scale is primarily used to indicate resonant dip, and the absolute value isn't very critical.

As an aside, I have seen cases where the meter bracket becomes magnetized, and demagnetizing it
can restore a meter to normal. You do NOT however want to get anywhere near the meter with any
demag tools!!! Sometime you can just smack the bracket with a hammer, (after removing it from
the radio!!!!!,) to demag it.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

rochep@... wrote:
> I know we are supposed to set our no-load bias to 70 mA, but my meter does NOT read ZERO mA when powered off, it is sitting up at about 20 mA. Should I therefore adjust my bias to 90 mA (taking the 20 mA as a "zero", or not worry about it? I don't see how to adjust the meter to zero (like I can in my R4A receiver).
>
> paul
>
>

20319. Re: [DrakeRadio] Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:17:18 UTC
From: Joe - W7RKN
Topic: 20317 Message: 20319

Nice, precise, adjustment....*SMACK!* Love it!

Joe - W7RKN

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
Subject: Re: [DrakeRadio] Setting 70 mA bias for T4XB

>Sometime you can just smack the bracket with a hammer, (after removing it from
> the radio!!!!!,) to demag it.

[Non-text portions of this message have been removed]

20320. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:26:19 UTC
From: <rochep@...>
Topic: 20317 Message: 20320

No I have not calibrated it. Not sure how, I will check threads here.I guess to calibrate it I can just use my DMM as the "plate meter" to see how close to 70 mA I am?

p

[Non-text portions of this message have been removed]

20321. Re: [DrakeRadio] Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:43:25 UTC
From: Garey Barrell
Topic: 20317 Message: 20321

Well, I SAID to 'remove it from the radio first'!! :-) There may come a time ...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Joe - W7RKN wrote:
> Nice, precise, adjustment....*SMACK!* Love it!
>
> Joe - W7RKN
>
> ----- Original Message -----
> From: "Garey Barrell" <k4oah@...>
> Subject: Re: [DrakeRadio] Setting 70 mA bias for T4XB
>
>
>> Sometime you can just smack the bracket with a hammer, (after removing it from
>> the radio!!!!!,) to demag it.
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

20322. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:44:46 UTC
From: Garey Barrell
Topic: 20317 Message: 20322

Simplest is to measure the resistance of R45 with the DMM, and then calculate the voltage across
that resistance for 0.07A.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> No I have not calibrated it. Not sure how, I will check threads here.I guess to calibrate it I can just use my DMM as the "plate meter" to see how close to 70 mA I am?
>
> p
>

20323. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 18:48:05 UTC
From: Garey Barrell
Topic: 20317 Message: 20323

OOps! Too many projects going at one time..... Measure resistance of R35, then measure the voltage across that resistance for 0.07A. Once set for 70 mA, select a resistor for R38* that
makes the PLATE meter read 70 mA.. Be sure and select R38 with the transmitter right side up.
It does make a difference.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> No I have not calibrated it. Not sure how, I will check threads here.I guess to calibrate it I can just use my DMM as the "plate meter" to see how close to 70 mA I am?
>
> p
>
>

20324. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 19:10:11 UTC
From: <rochep@...>
Topic: 20317 Message: 20324

I will do this, but wouldn't using a DMM INSTEAD of the meter to adjust the bias give me an accurate bias current AND tell me what "70 mA" reads on the T4XB meter? (Don't worry, I will measure the resistors as you said!).

p

[Non-text portions of this message have been removed]

20325. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 20:27:07 UTC
From: Garey Barrell
Topic: 20317 Message: 20325

Yes, you can do that. You need to measure Cathode current, so need to 'break' the PA ground to
insert your meter.

My way is just a couple of readings on the DMM and a little 'higher' math with Ohm's Opinion!

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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>

20326. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 20:28:07 UTC
From: Garey Barrell
Topic: 20317 Message: 20326

One more thing.... When measuring R35, don't forget the lead resistance. (unless you have a 'four-wire' ohmmeter!)

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

rochep@... wrote:
> I will do this, but wouldn't using a DMM INSTEAD of the meter to adjust the bias give me an accurate bias current AND tell me what "70 mA" reads on the T4XB meter? (Don't worry, I will measure the resistors as you said!).
>
>

20327. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 20:46:49 UTC
From: <rochep@...>
Topic: 20317 Message: 20327

what do you mean "lead resistance"? I was gonna take it out of the radio and use my DMM to read resistance.

p

[Non-text portions of this message have been removed]

20328. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-23 20:55:49 UTC
From: Garey Barrell
Topic: 20317 Message: 20328

I'm not concerned about parallel resistance, but the test leads on your DMM have 'some' resistance. Depending upon the leads, they may have a tenth or two ohms resistance between them. If you short the probes together, what does the DMM say? (Beside, 'Don't short me!!')

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> what do you mean "lead resistance"? I was gonna take it out of the radio and use my DMM to read resistance.
>
>

20330. 34pnb jumpers

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 00:58:21 UTC
From: David Nichols
Topic: 20330 Message: 20330

OK, IM GOING TO WEAR THE NOISE BLANKER OUT PULLING AND RE-INSTALLING.

JUST WANT TO CHECK AND SEE IF IM SEEING THINGS RIGHT ON JUMPERS FOR THE SOCKET. IT LOOKS LIKE PINS 1+7 AND 2+6 THE WAY IM SEEING IT.

I HAVE TRACKED MY SHORT DOWN TO EITHER THE SSB SWITCH OR THE SSB LIGHTS?

IM PUTTING EVERYTHING ELSE BACK TOGETHER UP TO THAT ISOLATION POINT TO SEE IF THATS THE ONLY ONE. THAT SWITCH IS GOING TO BE TOUGH TO EVEN GET AN EYE ON. AT THIS POINT, IT SEEMS TO SHORT WHEN I INSTALL A BULB IN THE HOLDER. I DONT UNDERSTAND EVERYTHING I KNOW ABOUT IT YET. HI HI
DAVID, KX7C

[Non-text portions of this message have been removed]

20331. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 01:42:59 UTC
From: <rochep@...>
Topic: 20317 Message: 20331

So here is where I am. I found R36 (it is on the board right behind the power resistors near the relay). I measured 3.3 ohms NET (background of meter was 0.1 ohm), so it is all OK. At 70 mA the voltage drop should be 0.23 volts. On TUNE I measure 245 mV one side and 10 mV on the other side, this is about 235 mV drop. I am happy with this. My METER is reading about 0.02 amp turned off/on SSB and then on TUNE my "70 mA" reading is about 0.1 amp on the meter. (0.1-0.02=0.8 amps anyway, so not TOO bad just by going "up" from 0.02).

R36 is my "calibration" resistor located on top of the meter switch; this has no value listed on the schematic (with the manual). The resistor is MARKED 27 ohms but I measure 36 ohms when out of circuit. So this is the resistor I have to change to get my meter to read "0.07 amps" when it is REALLY 0.07 amps? I do not have a 0-100 ohm or 0-250 ohm pot to figure out the best value. Instead of goofing around I will get one at RatShack tomorrow and do this right.

Thanks for the help!!! I knew bias was important but I guess I did not realize the meter could be that far off.

paul

[Non-text portions of this message have been removed]

20332. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 02:07:33 UTC
From: Garey Barrell
Topic: 20317 Message: 20332

Do you have a 400 or 500 mA fs meter?? Early ones had 400 mA, later ones had 500 mA.

I think you're going to need a 2.7 ohm resistor, the 2.2 doesn't develop quite enough voltage
for the meter. The T-4XC actually went to 3.3 ohms for a little more margin.

Exactly.... This is why checking this is so important. The idle current has a LOT to do with
linearity AND dissipation in the PA tubes. Can make a big difference.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Hi Garey,
>
> WELL ... when I short my leads together I get 4 ohms. OK, not great. But when I take R36 OUT of the circuit (off the switch) I read 36 ohms!!!! Not 2.2, but 36!!!!! So that is no good. I have 2.2 watt resistors (1 watt).
>
> Should I buy the "required" 2.7 ohm resistor (and measure 0.19 V across R36) OR use the 2.2 ohm resistor (and go for 0.15 V across it, 2.2 ohm X 20 mA)?
>
> Wow, I'm glad I asked about this. Who knows what my REAL bias has been!!
>
> paul
>

20333. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 02:15:15 UTC
From: Garey Barrell
Topic: 20317 Message: 20333

Paul -

I still haven't learned to read all the way down my eMail before answering!! You came up with
the correct answer in spite of my "help"! :-)

Yes, R38 is the resistor mounted on the slide switch terminals between PLATE and LOAD controls.
This is a 'select at test' resistor to calibrate the meter.

Don't worry about the 'offset' of the meter at 'zero'. Just choose R38 so the meter reads 0.070
mA (the mark 'above' the scale) when you have 230 mV across R36.

I think it was Steve who was experimenting with zero'ing meters.

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

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>
> Thanks for the help!!! I knew bias was important but I guess I did not realize the meter could be that far off.
>
> paul
>

20334. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 13:24:07 UTC
From: <rochep@...>
Topic: 20317 Message: 20334

Wow, I had to change the calibration resistor R38⋆ to 320 ohms to get the meter to read 0.07 when the voltage drop across R36 is 230 mV. Now at least I can be sure where "70 mA" is on my meter. Unfortunately, the other readings are way off: For example putting 130 watts OUTPUT (measured on my wattmeter) the plate current on the T4XB read 0.25 amps. WHOA!! That is (theoretically) 162 watts INPUT power! I knew the transmitter was good, but I don't think it is 80% efficient!! Assuming 50% efficiency, that means that the 0.25 amp reading on the T4XB meter is REALLY 0.4 amps. Am I doing this math right?

I really don't use the T4XB meter when tuning up, I use my wattmeter and go for maximum smoke and then turn gain back to about 100 watts out.

I have to go back now and "calibrate" my T4XC to confirm 70 mA bias.

paul

[Non-text portions of this message have been removed]

20335. Re-painting VFO hood ... WOW!!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 13:33:24 UTC
From: <rochep@...>
Topic: 20335 Message: 20335

I know that in addition to getting new blue filters we are all told that re-painting the VFO "hood/reflector/light shield" pure white will really help. I did not think mine looked THAT yellow, but re-painted it with pure white primer paint (all I had). WOW, what a difference!! Even with the faded blue filter the panel looked MUCH more "blue" and less "greenish blue"!! I can't wait for my new Lee Lagoon blue filter.

I thought my VFO hood/reflector think already WAS white, I was wrong. If you have not done this, I think you will be amazed.

paul

[Non-text portions of this message have been removed]

20336. T-4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 14:48:09 UTC
From: Robert Logan
Topic: 20336 Message: 20336

Does anyone have a good, working T-4XB excess to their needs they might like to sell? I need a backup to my T-4XC while i'm working on it. I miss using my Drakes. Thanks. Bob NZ5A

Sent from my iPhone

20337. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 14:45:24 UTC
From: David Nichols
Topic: 20301 Message: 20337

Ok, its alive again! I found the short to be the filter mounting bracket shorted to one of the solder lugs on the filter switch. Wish I had started at the front. hi hi I have learned a lot more about the TR-4CW than I believed I would when I bought it. I hope it doesnt turn out to be related to a Ford. hi hi Well the good thing is you can work on them.
With all the rolling and turning, getting to the top and then the bottom I suppose I used the filters as a handle or something. As far as the shorted tube, it seems to be intermittent. It tests out as a very good tube if you dont change its position, what a shame.

Now, what was I doing?
David, KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 23, 2014 8:01 AM
Subject: Re: [DrakeRadio] test socket during alignment

David -

It has to be a short from the filament 'hot' line to the chassis. The fuse is in the 'hot' side
as well, so all those parallel tube heaters to ground are going to read a very low resistance to
ground, and your continuity tester may not be able to tell the difference. Have you pulled the
'adapter'?? They can develop internal shorts. Something is connecting the filament line to chassis with essentially zero ohms.

Pin 2 of V6 is the Grid, not this problem. Pins 4 & 5 of V6 are grounded, Pin 6 is 'hot'.

V3 filament pins are 4 & 5, one should be grounded, the other 'hot'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Thanks for the suggestions, I had not checked the bulbs but have now. I have not found the problem but I have checked about everything but the problem. Since I was doing the alignment I know exactly which tube I was on at the time. Whatever it is, is making very good contact. Im using my continuity meter as I go along with one side on the fuse and the other to ground. I figure if I do break the contact it will shut the meter up.. So far it looks like I better get some new batteries ready for the meter. I bought this TR-4cw to

play with but this aint the playing I had in mind. I have an R-4B coming in tomorrow and wanted to get to checking it out. Maybe I will, I might need to give this TR-4cw a rest.
> David, KX7C
>
>
>
>
> _____
> From: Doug Coffman <dj_coffman@...>
> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, April 22, 2014 6:51 PM
> Subject: Re: [DrakeRadio] test socket during alignment
>
>
>
>
> David,
>
> I'm sure you already know this but I figured I'd throw it in anyway.
>
> You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.
>
> N9XTF
>
> Sent from my iPhone
>
>> On Apr 22, 2014, at 21:42, Garey Barrell <k4oah@...> wrote:
>>
>> The fuse is for the filament string. You've shorted a filament pin somewhere.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> <www.k4oah.com>
>>
>> David Nichols wrote:
>>> SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE
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>>>
>>> DAVID, KX7C
>>>
>>>

[Non-text portions of this message have been removed]

20338. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:21:07 UTC
From: Garey Barrell
Topic: 20301 Message: 20338

David -

Cool! Those socket terminals are a PITA..... They just rotate too freely, and of course end
up leaning up against ground!

The fuse wire is #26 copper. The best source for this is a #18 AC line cord, which just happens
to consist of 7 strands of #26 ga copper wire!

Please do not replace it with any other wire, it is VERY important to protect the wiring harness
in case of a short on the filament lead!!!!!!!!!! If this wire is too big, you can end up with
a donor radio very quickly.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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>
> _____
> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, April 23, 2014 8:01 AM
> Subject: Re: [DrakeRadio] test socket during alignment
>
>
>

>
> David -
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> 'adapter'?? They can develop internal shorts. Something is connecting the filament line
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>>>> DAVID, KX7C
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>>>>

20339. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:35:45 UTC
From: David Nichols
Topic: 20301 Message: 20339

I didnt dig through my shop to see if I had any cords but Ill keep that in mind if it happens again. You get a lot more fuses that way.. I used the leads off of some old caps in my parts drawer. The schematic called for #26 tinned wire. I checked for diameter of #26 awg and it is .0159 or in my book .016. My cap leads where perfect, I used two caps.. hi hi
Nooo, it wasnt my test socket that shorted. I was watching for that, it was the bracket the filters are mounted on. It got pulled forward into the filter switch or ssb switch. Touched one of the lugs on the rotary switch. There is a is a piece on the front side that almost bisects the ssb switch and is in close proximity. It didnt take much convincing to get it to touch the lug.
Happy Happy, now I am trying to figure out why it is off frequency on 40 meters, 75 meters is fine. I must have done something.
David, KX7C

_____
From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 24, 2014 8:21 AM
Subject: Re: [DrakeRadio] test socket during alignment

David -

Cool! Those socket terminals are a PITA..... They just rotate too freely, and of course end
up leaning up against ground!

The fuse wire is #26 copper. The best source for this is a #18 AC line cord, which just happens
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Please do not replace it with any other wire, it is VERY important to protect the wiring harness
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> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, April 23, 2014 8:01 AM
> Subject: Re: [DrakeRadio] test socket during alignment
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>
> David Nichols wrote:
>> Thanks for the suggestions, I had not checked the bulbs but have now. I have not found the problem but I have checked about everything but the problem. Since I was doing the alignment I know exactly which tube I was on at the time. Whatever it is, is making very good contact. Im using my continuity meter as I go along with one side on the fuse and the other to ground. I figure if I do break the contact it will shut the meter up.. So far it looks like I better get some new batteries ready for the meter. I bought this TR-4cw to play with but this aint the playing I had in mind. I have an R-4B coming in tomorrow and

wanted to get to checking it out. Maybe I will, I might need to give this TR-4cw a rest.
>> David, KX7C
>>
>>
>>
>>
>> _____
>> From: Doug Coffman <dj_coffman@...>
>> To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>> Sent: Tuesday, April 22, 2014 6:51 PM
>> Subject: Re: [DrakeRadio] test socket during alignment
>>
>>
>>
>>
>> David,
>>
>> I'm sure you already know this but I figured I'd throw it in anyway.
>>
>> You can blow this fuse by shorting the bulb socket as well. I had the socket loose and it shorted to something on the bench.
>>
>> N9XTF
>>
>> Sent from my iPhone
>>
>>> On Apr 22, 2014, at 21:42, Garey Barrell <k4oah@...> wrote:
>>>
>>> The fuse is for the filament string. You've shorted a filament pin somewhere.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> David Nichols wrote:
>>>> SO I MADE UP AN ALIGNMENT LOAD AND SET TO DOING A PROPER ALIGNMENT ON THE TR-4CW. IM ON THE INJECTION COUPLER SECTION AND I DONT REALLY LIKE STICKING MY FINGERS IN THERE TO ATTACH MY TEST HOOK TO THE TUBE PIN. MY FIRST GO AT IT I JUST TURNED THE RIG OFF AND MADE THE ATTACHMENT TO PIN 9 OF V3. I MADE THE ADJUSTMENT AND WENT TO SEE IF IT WAS SET BY CHECKING MY WORK. BUT I THOUGHT WHY SHOULD I PUT MY FINGERS IN THERE? I HAVE TEST SOCKETS AND CAN USE THEM TO ATTACH MY LOAD. SO I INSERTED THE TEST SOCKET AND ATTACHED THE LOAD TO PIN 9 AND TURNED THE RIG ON. IT WENT DARK, I FOUND THE WIRE FUSE BURNED IN HALF. I CHECKED THE TUBES, FOUND A SHORTED PIN TWO ON THE DRIVER V6 AND CHANGED IT OUT. I HAVE SINCE BURNED THREE MORE FUSES. I WILL START CHECKING RESISTANCE READINGS AND TRYING TO FIGURE OUT WHAT IS DOING THIS. I GUESS THAT USING A TEST SOCKET ISNT THE WAY TO DO THE ALIGNMENT. I THINK I WOULD PREFER TO KEEP MY FINGERS OUT OF ALL THE WIRES AND PARTS. MAYBE
>> I
>>>> NEED TO GET A LONGER HOOK FOR MY TEST LEAD. SO DID THE TEST SOCKET CAUSE THIS OR DID I

JUST ROLL SOMETHING AROUND AND MAKE A SHORT?
>>>>
>>>> DAVID, KX7C
>>>>
>>>>

[Non-text portions of this message have been removed]

20340. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:42:15 UTC
From: Richard Knoppow
Topic: 20301 Message: 20340

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 24, 2014 7:45 AM
Subject: Re: [DrakeRadio] test socket during alignment

Ok, its alive again! I found the short to be the filter mounting bracket shorted to one of the solder lugs on the filter switch. Wish I had started at the front. hi hi I have learned a lot more about the TR-4CW than I believed I would when I bought it. I hope it doesnt turn out to be related to a Ford. hi hi Well the good thing is you can work on them. With all the rolling and turning, getting to the top and then the bottom I suppose I used the filters as a handle or something. As far as the shorted tube, it seems to be intermittent. It tests out as a very good tube if you dont change its position, what a shame.

Now, what was I doing?
David, KX7C

About the tube, have you cleaned its pins and the contacts in the socket? When tubes have an internal problem it usually responds to tapping the envelope. Hold the tube by the seal at the top and tap it with something. If its intermittent it will usually show up. About the pins, I have had tubes that worked in the tester or on an extender but not the socket it was supposed to go in. Cleaning the pins fixed it. Use a small wire brush on the tube and clean the socket with a pipe cleaner and Deoxit or those little wedge shaped brushes for cleaning in between your teeth. Even a toothbrush and toothpaste will work on the tube pins.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20341. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:46:59 UTC
From: Garey Barrell
Topic: 20317 Message: 20341

Paul -

That's way too high. Something is amiss!! :-) Do you have a 400 or 500 mA full scale meter???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Wow, I had to change the calibration resistor R38* to 320 ohms to get the meter to read 0.07 when the voltage drop across R36 is 230 mV. Now at least I can be sure where "70 mA" is on my meter. Unfortunately, the other readings are way off: For example putting 130 watts OUTPUT (measured on my wattmeter) the plate current on the T4XB read 0.25 amps. WHOA!! That is (theoretically) 162 watts INPUT power! I knew the transmitter was good, but I don't think it is 80% efficient!! Assuming 50% efficiency, that means that the 0.25 amp reading on the T4XB meter is REALLY 0.4 amps. Am I doing this math right?
>
> I really don't use the T4XB meter when tuning up, I use my wattmeter and go for maximum smoke and then turn gain back to about 100 watts out.
>
> I have to go back now and "calibrate" my T4XC to confirm 70 mA bias.
>
> paul
>
> [Non-text portions of this message have been removed]
>
>
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>
> Yahoo Groups Links
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20342. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:54:02 UTC
From: Garey Barrell
Topic: 20301 Message: 20342

That's pretty small cap leads......

How far off on 40M??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> I didnt dig through my shop to see if I had any cords but Ill keep that in mind if it happens again. You get a lot more fuses that way.. I used the leads off of some old caps in my parts drawer. The schematic called for #26 tinned wire. I checked for diameter of #26 awg and it is .0159 or in my book .016. My cap leads where perfect, I used two caps.. hi hi
> Nooo, it wasnt my test socket that shorted. I was watching for that, it was the bracket the filters are mounted on. It got pulled forward into the filter switch or ssb switch. Touched one of the lugs on the rotary switch. There is a is a piece on the front side that almost bisects the ssb switch and is in close proximity. It didnt take much convincing to get it to touch the lug.
> Happy Happy, now I am trying to figure out why it is off frequency on 40 meters, 75 meters is fine. I must have done something.
> David, KX7C
>
>
>
>

20343. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 15:52:12 UTC
From: David Nichols
Topic: 20301 Message: 20343

Hello Richard, I found a longer hook I will try. That way I wont have to worry about the test socket touching a can or something. I was trying to use some little short spring loaded hooks I picked up at rat shack. Most of my stuff is packed and I didnt want to open boxes to find them. I almost have all of my boxes open now. The place isnt selling anyway. It only takes some repacking and more tape to close them up. hi hi
I found my 40 meter cal signal, all the bands are right except 40 and what I thought was off freq turns out to be two signals.. I have a weak one where it should be and 30 kc's up is a strong signal.
David, KX7C

_____
From: Richard Knoppow <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 24, 2014 8:42 AM
Subject: Re: [DrakeRadio] test socket during alignment

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 24, 2014 7:45 AM
Subject: Re: [DrakeRadio] test socket during alignment

Ok, its alive again! I found the short to be the filter mounting bracket shorted to one of the solder lugs on the filter switch. Wish I had started at the front. hi hi I have learned a lot more about the TR-4CW than I believed I would when I bought it. I hope it doesnt turn out to be related to a Ford. hi hi Well the good thing is you can work on them. With all the rolling and turning, getting to the top and then the bottom I suppose I used the filters as a handle or something. As far as the shorted tube, it seems to be intermittent. It tests out as a very good tube if you dont change its position, what a shame.

Now, what was I doing?
David, KX7C

About the tube, have you cleaned its pins and the contacts in the socket? When tubes have an internal problem it usually responds to tapping the envelope. Hold the tube by the seal at the top and tap it with something. If its intermittent it will usually show up. About the pins, I have had tubes that worked in the tester or on an extender but not the socket it was supposed to go in. Cleaning the pins fixed it. Use a small wire brush on the tube and clean the socket with a pipe cleaner and Deoxit or those little

wedge shaped brushes for cleaning in between your teeth.
Even a toothbrush and toothpaste will work on the tube pins.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

20344. 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 16:00:27 UTC
From: <kk.n8vkx@...>
Topic: 20344 Message: 20344

This probably has been asked before, but I'm new. I was thinking of buying some new output tubes for my Drake TR-4 at the Dayton Hamfest. Is there any certain manufacturer name I shouldn't use in the Drake?

[Non-text portions of this message have been removed]

20345. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 16:06:59 UTC
From: David Nichols
Topic: 20301 Message: 20345

Hi Garey, hi hi, they where little caps.
I measured them with a set of dial slide calipers, they where just right. Didnt think I really needed to pull the micrometer out. I may not be an Electronics Tech but I am a Millwright. When I get directions that I can make sense of I can usually git er done.
Thanks for you guidance, while I havent been asking that many questions I have been reading.
I appreciate the support I have seen on here, not only for me but others who sometimes seem to be as challenged as I.
David, KX7C

From: Garey Barrell <k4oah@mindspring.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 24, 2014 8:54 AM
Subject: Re: [DrakeRadio] test socket during alignment

That's pretty small cap leads......

How far off on 40M??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> I didnt dig through my shop to see if I had any cords but Ill keep that in mind if it happens again. You get a lot more fuses that way.. I used the leads off of some old caps in my parts drawer. The schematic called for #26 tinned wire. I checked for diameter of #26 awg and it is .0159 or in my book .016. My cap leads where perfect, I used two caps.. hi hi
> Nooo, it wasnt my test socket that shorted. I was watching for that, it was the bracket the filters are mounted on. It got pulled forward into the filter switch or ssb switch. Touched one of the lugs on the rotary switch. There is a is a piece on the front side that almost bisects the ssb switch and is in close proximity. It didnt take much convincing to get it to touch the lug.
> Happy Happy, now I am trying to figure out why it is off frequency on 40 meters, 75 meters is fine. I must have done something.
> David, KX7C
>
>
>
>

[Non-text portions of this message have been removed]

20346. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 16:24:32 UTC
From: Garey Barrell
Topic: 20344 Message: 20346

Stick with Sylvania, Zenith, RCA or GE for best results. Also take a ruler with you to measure
the overall height. From the bottom of the glass envelope to the top of the plate cap MUST be
3-1/8" MAXIMUM.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kk.n8vkx@... wrote:
> This probably has been asked before, but I'm new. I was thinking of buying some new output tubes for my Drake TR-4 at the Dayton Hamfest. Is there any certain manufacturer name I shouldn't use in the Drake?
>
>
>

20347. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 17:01:48 UTC
From: <rochep@...>
Topic: 20317 Message: 20347

I'll check the meter when I get home. After soldering my 320 ohm calibration resistor in I confirmed that the voltage drop across R36 was still 230 mV; it was. The OLD calibration resistor was reading 36 ohms at the meter read 0.1 amp when it was really 70 mA. Now 70 mA reads 70 mA.

I'll go back and re-check everything tonight. I measured DC voltage on each end of R36 when in TUNE mode with GAIN, PLATE, and LOAD controls all at a minimum.

paul

[Non-text portions of this message have been removed]

20348. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 17:51:59 UTC
From: Al Parker
Topic: 20317 Message: 20348

Hi Paul,
I must admit first off, that I haven't studied every msg in this thread. But I think checking the value of R36 accurately, at it's small value, is a bit "iffy". e.g. if it's supposed to be 3 ohms (or a bit more), 10% is only about 0.3 ohms, and with meter inaccuracies and lead and variable contact resistances, 10% is hard to really be sure of.
I much prefer to measure the value of each cathode resistor of the finals, and after measuring voltage drop, use ohms law to determine the actual cathode current(s). They're 15 ohms, and 10% is bigger, not so prone to error. It takes a little more time, but I think it's much more accurate a measurement.
Just my opinion and way of doing it (thru many yrs), and worth what you paid for it.
And thanks to Garey for (years ago) personally demonstrating to me the value of an ESR meter. But I'm not sure if I would rely upon it's accuracy even tho' it's meant for very low resistances.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/24/2014 1:01 PM, rochep@... wrote:
> I'll check the meter when I get home. After soldering my 320 ohm
> calibration resistor in I confirmed that the voltage drop across R36 was
> still 230 mV; it was. The OLD calibration resistor was reading 36 ohms
> at the meter read 0.1 amp when it was really 70 mA. Now 70 mA reads 70 mA.
>
> I'll go back and re-check everything tonight. I measured DC voltage on
> each end of R36 when in TUNE mode with GAIN, PLATE, and LOAD controls
> all at a minimum.
>
> paul
>

20349. Re: [DrakeRadio] test socket during alignment

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 17:54:19 UTC
From: Richard Knoppow
Topic: 20301 Message: 20349

-----Original Message-----
>From: David Nichols <hamcomm7@...>
>Sent: Apr 24, 2014 8:52 AM
>To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>Subject: Re: [DrakeRadio] test socket during alignment
>
>Hello Richard, I found a longer hook I will try. That way I wont have to worry about the test socket touching a can or something. I was trying to use some little short spring loaded hooks I picked up at rat shack. Most of my stuff is packed and I didnt want to open boxes to find them. I almost have all of my boxes open now. The place isnt selling anyway. It only takes some repacking and more tape to close them up. hi hi
>I found my 40 meter cal signal, all the bands are right except 40 and what I thought was off freq turns out to be two signals.. I have a weak one where it should be and 30 kc's up is a strong signal.
>David, KX7C
>
I missed part of the thread before. Extension sockets can be a PITA and won't fit in some chassis.

20350. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 18:10:41 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20350

Wow I was shocked when my caps arrived today never thought that it was going to be this big lol....Garey it brings a whole new meaning to your question were am I going to put it lol.... photo shows the new 60, and 10uf caps in black next to a standard 10uf cap and the old bad can to the left lol hmmmmm

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20351. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 18:23:10 UTC
From: <rochep@...>
Topic: 20262 Message: 20351

We are talking about C129, right? Isn't this 60 uF cap supposed to be an electrolytic? Does it matter?

paul

[Non-text portions of this message have been removed]

20352. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 18:25:59 UTC
From: Garey Barrell
Topic: 20262 Message: 20352

Dave -

Yes, I wondered if you had gotten out your 'mM to inches' conversion table. :-) Now you know
why we use electrolytic capacitors..........

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Wow I was shocked when my caps arrived today never thought that it was going to be this big lol....Garey it brings a whole new meaning to your question were am I going to put it lol.... photo shows the new 60, and 10uf caps in black next to a standard 10uf cap and the old bad can to the left lol hmmmmm
>
> Dave
>
> Sent from Yahoo Mail on Android
>
>
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20353. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 18:46:30 UTC
From: Garey Barrell
Topic: 20262 Message: 20353

Paul -

Yes the original is an electrolytic. A uF is a uF, whether it's electrolytic or film. The difference, as Dave found out, is that 'non-electrolytic' uF's are a heck of a lot bigger than
electrolytic uF's!! :-)

As you know, electrolytic capacitors don't particularly care for AC, since reverse polarity voltage tends to 'undo' the chemical dielectric effect on the plates of the cap. So electrolytics are used almost universally to filter or bypass DC, where they never see reverse
voltage. Film caps though, are perfectly happy with either voltage, since their dielectric is
plastic and doesn't depend on chemical action to insulate one plate from the next. Large value
film capacitors are typically used in audio speaker crossover networks, mainly in high-pass networks to keep the BASS in the big speaker(s) and the TREBLE in the tiny speaker(s).

To answer your question, no, it doesn't matter as long as you can build on an addition to the
cabinet to house the film cap!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> We are talking about C129, right? Isn't this 60 uF cap supposed to be an electrolytic? Does it matter?
>
> paul
>

20354. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 19:25:35 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20354

Wow lol well I actually got them installed until Tom cans are back on the market. The 60uf fit according to my original idea of mounting it in the old can hole and the 10uf is mounted underneath.

Finding 60uf 250v ele caps are very hard. Even two 30uf at 250v are challenging to locate. I was expecting the cap to be larger but not that big lol lol well its installed now until Toms caps are back and it brought me some humor for the day :) wish I can post a photo

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20355. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 19:41:31 UTC
From: Garey Barrell
Topic: 20317 Message: 20355

Hi Al -

You're quite accurate, as usual..... I'm a little lazy, and with a good DMM -AND- compensating for lead resistance, you can come pretty close. Certainly measuring the individual
Cathode currents as you describe leaves less room for error, plus giving you an idea of the degree of match for your PA tubes.

T-4X and early T-4XB transmitters had a 400 mA full scale PLATE meter. They are wired as voltmeters, measuring the voltage drop across the 'sensing' resistor, which varied from 2.7 to
3.3 ohms over the years. The meter is 'basically' a 3 mA full scale device with a 430 ohm coil
resistance. So for a 400 mA scale and a 3.3 ohm resistor the meter has to see 1.32 V across R36
for full scale, which is cutting it close at 440 ohms, only a 10 ohm R38. Drake went to 2.7 ohms when they changed to 500 mA full scale, 1.35 V, which is still cutting it close at 450 ohms. For the T-4XC, they finally got it straight with a 3.3 ohm resistor and 500 mA fs, 1.65 V
for 550 ohms and a 120 ohm R38.

I would suggest using a 3.3 ohm resistor and then selecting an appropriate R38 for the T-4X(any).

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Al Parker wrote:
> Hi Paul,
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> thread. But I think checking the value of R36 accurately, at it's small
> value, is a bit "iffy". e.g. if it's supposed to be 3 ohms (or a bit
> more), 10% is only about 0.3 ohms, and with meter inaccuracies and lead
> and variable contact resistances, 10% is hard to really be sure of.
> I much prefer to measure the value of each cathode resistor of the
> finals, and after measuring voltage drop, use ohms law to determine the
> actual cathode current(s). They're 15 ohms, and 10% is bigger, not so
> prone to error. It takes a little more time, but I think it's much more
> accurate a measurement.
> Just my opinion and way of doing it (thru many yrs), and worth what you
> paid for it.
> And thanks to Garey for (years ago) personally demonstrating to me the

> value of an ESR meter. But I'm not sure if I would rely upon it's
> accuracy even tho' it's meant for very low resistances.
> 73,
>
> Al, W8UT
> www.boatanchors.org
> www.hammarlund.info
>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 4/24/2014 1:01 PM, rochep@... wrote:
>> I'll check the meter when I get home. After soldering my 320 ohm
>> calibration resistor in I confirmed that the voltage drop across R36 was
>> still 230 mV; it was. The OLD calibration resistor was reading 36 ohms
>> at the meter read 0.1 amp when it was really 70 mA. Now 70 mA reads 70 mA.
>>
>> I'll go back and re-check everything tonight. I measured DC voltage on
>> each end of R36 when in TUNE mode with GAIN, PLATE, and LOAD controls
>> all at a minimum.
>>
>> paul
>>
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> ------------------------------------
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> Yahoo Groups Links
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20356. T-4XB R76 change?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 19:51:33 UTC
From: n1ohn@yahoo.com
Topic: 20356 Message: 20356

Well after installing me monster caps lol I noticed that on board-6 the parts list shows R76 at 2.2M Ohms and in my radio I have R76 installed 330K Ohms that looks like its factory installed. Is this a change that Drake did at some point or is this a mod or just another golden screwdriver award?

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20357. RE: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 19:55:48 UTC
From: Doug Coffman
Topic: 20262 Message: 20357

Dave,

If you are bored, you can post a picture in the files section of the Yahoo group.

73,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of n1ohn@yahoo.com
Sent: Thursday, April 24, 2014 3:26 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: T4XB 60uf Cap??

Wow lol well I actually got them installed until Tom cans are back on the market. The 60uf fit according to my original idea of mounting it in the old can hole and the 10uf is mounted underneath.

Finding 60uf 250v ele caps are very hard. Even two 30uf at 250v are challenging to locate. I was expecting the cap to be larger but not that big lol lol well its installed now until Toms caps are back and it brought me some humor for the day :) wish I can post a photo

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20358. RE: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 19:56:27 UTC
From: Doug Coffman
Topic: 20262 Message: 20358

Duh, photos section, sorry.

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of n1ohn@...
Sent: Thursday, April 24, 2014 3:26 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Re: T4XB 60uf Cap??

Wow lol well I actually got them installed until Tom cans are back on the market. The 60uf fit according to my original idea of mounting it in the old can hole and the 10uf is mounted underneath.

Finding 60uf 250v ele caps are very hard. Even two 30uf at 250v are challenging to locate. I was expecting the cap to be larger but not that big lol lol well its installed now until Toms caps are back and it brought me some humor for the day :) wish I can post a photo

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20359. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:00:13 UTC
From: Mike
Topic: 20344 Message: 20359

Garey and the group

Besides the 6JB6, what else will work? Assuming the physical requirements are met.

Mike wb8vge

Sent from my iPhone

> On Apr 24, 2014, at 12:24 PM, Garey Barrell <k4oah@...> wrote:
>
> Stick with Sylvania, Zenith, RCA or GE for best results. Also take a ruler with you to measure
> the overall height. From the bottom of the glass envelope to the top of the plate cap MUST be
> 3-1/8" MAXIMUM.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> kk.n8vkx@... wrote:
> > This probably has been asked before, but I'm new. I was thinking of buying some new output tubes for my Drake TR-4 at the Dayton Hamfest. Is there any certain manufacturer name I shouldn't use in the Drake?
> >
> >
> >
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[Non-text portions of this message have been removed]

20360. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:01:08 UTC
From: Garey Barrell
Topic: 20262 Message: 20360

Dave -

A 68 uF @ 250 VDC cap is about $1.50 at Mouser. 16 x 25 mm, radial leads. Actually anything from 60 to 100 uF@ 250 VDC would be ok.

Most all components now are on the same 'standard values' scale as resistors, e.g. 10, 11, 12,
13, 14, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 63, 68, 75, 82, 91, 100 for
5% parts.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Wow lol well I actually got them installed until Tom cans are back on the market. The 60uf fit according to my original idea of mounting it in the old can hole and the 10uf is mounted underneath.
>
> Finding 60uf 250v ele caps are very hard. Even two 30uf at 250v are challenging to locate. I was expecting the cap to be larger but not that big lol lol well its installed now until Toms caps are back and it brought me some humor for the day :) wish I can post a photo
>
> Dave
>
> Sent from Yahoo Mail on Android
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20361. RE: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:07:49 UTC
From: Doug Coffman
Topic: 20344 Message: 20361

Mike,

Reportedly the 6GJ5 will work but may require capacitance addition to the neutralization capacitor.

Doug – N9xTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Mike
Sent: Thursday, April 24, 2014 4:00 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 6JB6 Queery?

Garey and the group

Besides the 6JB6, what else will work? Assuming the physical requirements are met.

Mike wb8vge

Sent from my iPhone

> On Apr 24, 2014, at 12:24 PM, Garey Barrell <k4oah@... <mailto:k4oah@...> > wrote:
>
> Stick with Sylvania, Zenith, RCA or GE for best results. Also take a ruler with you to measure
> the overall height. From the bottom of the glass envelope to the top of the plate cap MUST be
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> <www.k4oah.com <http://www.k4oah.com> >
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> kk.n8vkx@... <mailto:kk.n8vkx@...> wrote:
> > This probably has been asked before, but I'm new. I was thinking of buying some new output tubes for my Drake TR-4 at the Dayton Hamfest. Is there any certain manufacturer name I shouldn't use in the Drake?
> >
> >
> >
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[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20362. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:14:26 UTC
From: Eddy Swynar
Topic: 20344 Message: 20362

On 2014-04-24, at 4:07 PM, Doug Coffman wrote:

> Mike,
>
> Reportedly the 6GJ5 will work but may require capacitance addition to the neutralization capacitor.
>
> Doug ? N9xTF
>
>

Hi Mike,

You already have the maximum heights allowed for those tubes from Garey, so I won't repeat what he said, save for the fact that you should still physically MEASURE your prospective candidates to ensure a good fit.

I know for a fact that Sylvania actually lists a maximum height in their tube manual for the 6JB6, so I wouldn't be particularly suspicious of that brand: they should be A-OK for you...

Yes, the 6GJ5 is a sub for the 6JB6, but like Doug said, be ready to parallel some fixed "C" with that neutralizing capacitor if you try a pair.

~73~ de Eddy VE3CUI - VE3XZ

[Non-text portions of this message have been removed]

20363. Re: [DrakeRadio] T-4XB R76 change?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:20:07 UTC
From: Garey Barrell
Topic: 20356 Message: 20363

Dave -

That's a production change. It decreased the 'idle' output power in AM mode, probably to reduce
dissipation in the PA.

If you looked in the MISC directory of my CD, you'd find there were two versions of the T-4XB
transmitter. Drake started with 330k in the T-4X, up through the version 2 of the T-4XB, when
it was changed to 2.2M. :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Well after installing me monster caps lol I noticed that on board-6 the parts list shows R76 at 2.2M Ohms and in my radio I have R76 installed 330K Ohms that looks like its factory installed. Is this a change that Drake did at some point or is this a mod or just another golden screwdriver award?
>
> Dave
>
>

20364. Re: [DrakeRadio] T-4XB R76 change?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:27:47 UTC
From: n1ohn@yahoo.com
Topic: 20356 Message: 20364

Nope did not look lol thanks Garey :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20365. Re: RE: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:30:00 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20365

OK all for your laughing pleasure I posted the photos under T-4XB Temp Caps group lol .... well it is working lol

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20366. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 20:32:27 UTC
From: Garey Barrell
Topic: 20344 Message: 20366

Mike -

The 6GJ5(A) is a good sub, again sticking with the same brands. MOST will work fine, the only
difference is that the Suppressor Grid is tied to the Cathode internally whereas it is brought
out to a separate pin on the 6JB6(A). This results in an increase of 0.06 pF in Grid to Plate
and 0.5 pF in Plate to Cathode. The neut. cap only has about 5.5 pF delta C in parallel with a
10-12 pF fixed so depending upon the accuracy of the fixed cap you may need to change it.
Generally speaking, my experience has been that the four brands will neutralize just fine with
no changes.

By the way, apparently the Sylvania tubes are NOT immune to the height problem. I have had
several tell me they have seen or had them, in spite of their (and RCA by the way,) specifying
3.125" max seated height. Probably late in the game, about the time they started bringing in
the 'hand-baskets/! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Eddy Swynar wrote:
> On 2014-04-24, at 4:07 PM, Doug Coffman wrote:
>
>> Mike,
>>
>> Reportedly the 6GJ5 will work but may require capacitance addition to the neutralization capacitor.
>>
>> Doug – N9xTF
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> Hi Mike,
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> I know for a fact that Sylvania actually lists a maximum height in their tube manual for the 6JB6, so I wouldn't be particularly suspicious of that brand: they should be A-OK for you...
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> Yes, the 6GJ5 is a sub for the 6JB6, but like Doug said, be ready to parallel some fixed "C" with that neutralizing capacitor if you try a pair.
>
> ~73~ de Eddy VE3CUI - VE3XZ
>
>
>

20367. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 21:32:11 UTC
From: Al Parker
Topic: 20317 Message: 20367

Hi Garey, et al,
(if anyone besides you, me, and Paul are still reading this thread)
Major point that you make, and I didn't but was thinking it, is that a "good" DMM is what we need to be using when we set bias, etc. I think there are more good ones these days %-wise than there used to be, but having a DMM that reads to 0.1 ohm or 0.01 volt, doesn't necessarily mean it's accurate to that degree.
A digital measuring device isn't necessarily an accurate device.
(and thanks, Paul, for your PM)
73, & maybe this one's about done?

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/24/2014 3:41 PM, Garey Barrell wrote:
> Hi Al -
>
> You're quite accurate, as usual..... I'm a little lazy, and with a good DMM -AND-
> compensating for lead resistance, you can come pretty close. Certainly measuring the individual
> Cathode currents as you describe leaves less room for error, plus giving you an idea of the
> degree of match for your PA tubes.
<snip>

20368. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 21:45:33 UTC
From: Joe W2KJ
Topic: 20344 Message: 20368

I recently subbed a pair of 6GJ5's for the 6JB6's in my T4XC and they neutralized easily with no additional capacitance.

I wanted to try a less expensive alternative for the 6JB6 and the 6GJ5 seems to fill the bill very well.

The only caveat, as I have mentioned in the past, is to make sure you get the shorter version of the tube...there are 6GJ5's out there that are too tall for the T4XC final cage top.

73, Joe W2KJ
TR7, C-Line

On Apr 24, 2014, at 4:14 PM, Eddy Swynar wrote:

>
> On 2014-04-24, at 4:07 PM, Doug Coffman wrote:
>
>> Mike,
>>
>> Reportedly the 6GJ5 will work but may require capacitance addition to the neutralization capacitor.
>>
>> Doug ^ N9xTF
>>
>>
>
>
> Hi Mike,
>
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> I know for a fact that Sylvania actually lists a maximum height in their tube manual for the 6JB6, so I wouldn't be particularly suspicious of that brand: they should be A-OK for you...
>
> Yes, the 6GJ5 is a sub for the 6JB6, but like Doug said, be ready to parallel some fixed "C" with that neutralizing capacitor if you try a pair.
>
> ~73~ de Eddy VE3CUI - VE3XZ
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> [Non-text portions of this message have been removed]

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20369. Re: [DrakeRadio] 6JB6 Queery?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-24 21:58:29 UTC
From: Bernie
Topic: 20344 Message: 20369

I'm going to bravely throw this out here as simply a "wondering"....I wonder if they would directly sub in a Tempo One!! I suppose I should trot on over to the Tempo list to find out. Same with any Hallicrafters that use that sweep tube I guess.
Carry on...73

Bernie in ND
WD?GMD

----- Original Message -----
From: "Joe W2KJ" <jotrom@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 24, 2014 4:45 PM
Subject: Re: [DrakeRadio] 6JB6 Queery?

I recently subbed a pair of 6GJ5's for the 6JB6's in my T4XC and they neutralized easily with no additional capacitance.

I wanted to try a less expensive alternative for the 6JB6 and the 6GJ5 seems to fill the bill very well.

The only caveat, as I have mentioned in the past, is to make sure you get the shorter version of the tube...there are 6GJ5's out there that are too tall for the T4XC final cage top.

73, Joe W2KJ
TR7, C-Line

On Apr 24, 2014, at 4:14 PM, Eddy Swynar wrote:

>
> On 2014-04-24, at 4:07 PM, Doug Coffman wrote:
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>> Mike,
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>> neutralization capacitor.
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> Hi Mike,
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> You already have the maximum heights allowed for those tubes from Garey,
> so I won't repeat what he said, save for the fact that you should still

> physically MEASURE your prospective candidates to ensure a good fit.
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> tube manual for the 6JB6, so I wouldn't be particularly suspicious of that
> brand: they should be A-OK for you...
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> Yes, the 6GJ5 is a sub for the 6JB6, but like Doug said, be ready to
> parallel some fixed "C" with that neutralizing capacitor if you try a
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Yahoo Groups Links

20370. TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 00:00:52 UTC
From: David Nichols
Topic: 20370 Message: 20370

Ok Garey I got my short figured out and did my alignment using the load this time.
I have read somewhere that I should probably see an S9 signal level on 10 meters from the calibrator.
after going through this I wonder if S7 isnt good enough.
I get a S7 from the calibrator signal on all three portions of the band.
I dont recall what generator level you guys said should give me an S9 but this is what I got.
To get an S9 reading on my S meter
@ 28.5 it took -50.7 dBm or 65.3mV
@ 29.0 it took -52.7 dBm or 57.8mV
@ 29.6 it took -51dBm or .631mV

She gave me 140 watts to the dummy load with the Bird 250 slug. My IFR only gave it 130 watts.

Im to the point that maybe I should leave well enough alone.

Anyway, I have an R4-B to play with now. Something new to shine up and check out. No, Im not going to go Marine Corps on it and whip out the Brasso. I think the deck will clean up nicely with a damp cloth on this one. Ill see what kind of trouble I can get into on this next.
David, KX7C

[Non-text portions of this message have been removed]

20371. Re: [DrakeRadio] TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 00:53:55 UTC
From: Steve Wedge
Topic: 20370 Message: 20371

Those readings don't sound that far off.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 24, 2014, at 8:00 PM, David Nichols <hamcomm7@...> wrote:
>
> Ok Garey I got my short figured out and did my alignment using the load this time.
> I have read somewhere that I should probably see an S9 signal level on 10 meters from the calibrator.
> after going through this I wonder if S7 isnt good enough.
> I get a S7 from the calibrator signal on all three portions of the band.
> I dont recall what generator level you guys said should give me an S9 but this is what I got.
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> Anyway, I have an R4-B to play with now. Something new to shine up and check out. No, Im not going to go Marine Corps on it and whip out the Brasso. I think the deck will clean up nicely with a damp cloth on this one. Ill see what kind of trouble I can get into on this next.
> David, KX7C
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20372. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 01:19:45 UTC
From: <rochep@...>
Topic: 20317 Message: 20372

Hi boys,

I certainly was worried about the "accuracy" of my new DMM, but it read 0.0-0.1 ohm when the leads were tied together and I was able to read 2.2 ohms with my brand new 2.2 ohm resistor. So I am confident, but I certainly understand the concern!!!!

My meter is a 500 mA max meter and the resistor was 3.3 ohms (as best as I can tell ;)). So I'm shooting for 230 mA drop and I hope my calibration resistor will get it to "look" like 70 mA on the meter. Today on my dummy load with 100 watts out on 80 I measured 220 mA on the meter; this is 143 watts input or 70% efficiency. This is a bit higher than I would expect (I think the meter is reading LOW), but I think it is more important to get the 70 mA accurate on the meter.

If I stick with the 220 ohm resistor as the calibrator the 70 mA is at the 0.08 A setting on the dial. NOW all the currents are a bit high, and with 100 watts out is reads more like 240 mA or 155 watts input (about 64% efficiency). This is closer to "accurate"; maybe I will just stick with this?

paul

ps I think this discussion is great. Thanks for all your help!!

[Non-text portions of this message have been removed]

20373. 2-B passband tuning width lever removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 02:02:49 UTC
From: Ethan Blanton
Topic: 20373 Message: 20373

Hi all,

I have a 2-B with a nearly pristine face plate that I would like to remove to be able to get to the slide switches behind, because the BFO switch is a little bit dodgy. (It is very difficult to actually turn the BFO off.) However, I can't figure out how to get the lever off the pass band tuning switch! It looks like the lever itself is soldered to a push-on sleeve (maybe some sort of collet? there's a brass tube in there, too...), but I cannot pull it off with moderate force and I am afraid to exert more than moderate force as the switch and PBT board do not seem to be particularly sturdily mounted. Is there a trick to getting this thing off?

Ethan

20374. Re: [DrakeRadio] TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 02:04:23 UTC
From: Garey Barrell
Topic: 20370 Message: 20374

David -

I'm going to assume you mean 65.3 'micro' (u)volts and not 'milli' (m)volts.

The 'typical' should be ~ 50 uV for and S-9. That is not a 'proof' test. The real proof test
is, 'do you get a noise peak when you adjust the RF TUNE with no antenna?' 'Does the noise level increase when you connect an antenna?' If either or both of these is true, button it up.
You have all the sensitivity you can use. There are many things that can affect this type of
test, and I wouldn't worry about it.

When you get the R-4B up and running, compare them on 10M using the same antenna. NOT at the
same time, obviously..... Don't worry so much about the S-Meter readings, just how a 'real' signal sounds on one or the other. S-Meters are far from calibrated devices.

As for the Wattmeters, a man with two watches never really knows what time it is!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok Garey I got my short figured out and did my alignment using the load this time.
> I have read somewhere that I should probably see an S9 signal level on 10 meters from the calibrator.
> after going through this I wonder if S7 isnt good enough.
> I get a S7 from the calibrator signal on all three portions of the band.
> I dont recall what generator level you guys said should give me an S9 but this is what I got.
> To get an S9 reading on my S meter
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> Anyway, I have an R4-B to play with now. Something new to shine up and check out. No, Im not going to go Marine Corps on it and whip out the Brasso. I think the deck will clean up

nicely with a damp cloth on this one. Ill see what kind of trouble I can get into on this next.
> David, KX7C
>
>

20375. Re: [DrakeRadio] 2-B passband tuning width lever removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 02:11:50 UTC
From: Garey Barrell
Topic: 20373 Message: 20375

The brass tube is the coupling. It has a flat piece of spring steel inside (don't lose it, it's
loose in there) that makes the 'flat' for the shaft.

The PC board IS rather fragile. I grasp the shaft on either side of the coupling, then press my
thumbs together to exert pressure. Much safer than yanking on it! Another method is to use a
screwdriver to pry against the switch frame. All you have to do is get it started. It's been
in that position for 50 years, so it's a little cranky to start.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ethan Blanton wrote:
> Hi all,
>
> I have a 2-B with a nearly pristine face plate that I would like to
> remove to be able to get to the slide switches behind, because the BFO
> switch is a little bit dodgy. (It is very difficult to actually turn
> the BFO off.) However, I can't figure out how to get the lever off
> the pass band tuning switch! It looks like the lever itself is
> soldered to a push-on sleeve (maybe some sort of collet? there's a
> brass tube in there, too...), but I cannot pull it off with moderate
> force and I am afraid to exert more than moderate force as the switch
> and PBT board do not seem to be particularly sturdily mounted. Is
> there a trick to getting this thing off?
>
> Ethan
>
>
>

20376. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 02:39:00 UTC
From: Garey Barrell
Topic: 20317 Message: 20376

You're getting close..... You want to get it as close as you can to the 0.07A mark, if not
for you, for the next guy!

As discussed, the meters are not precision devices. They are fairly linear, but not perfect.

A 2.2 ohm resistor is pushing it with a 500 mA full scale meter. The meter internal resistances
vary, as does the full scale current, but they are nominally 3 mA and 430 ohms. 500 mA would be
1.29 V with NO R38. It should take only a couple of ohms at R38 to read correctly. R36 should
really be 3.3 ohms, giving you a full scale of 1.65 V, and R38 at 120 ohms. 0.07/0.5 = 0.14 x
1.65 = 0.231 V for the 70 mA mark.

If you really want to know, measure the voltage across R26 when loaded and calculate the current
based on your 2.2 ohm resistor, then compare with the PLATE meter reading..

Typical 'real' efficiency is about 50-55%.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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>
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> My meter is a 500 mA max meter and the resistor was 3.3 ohms (as best as I can tell ;)). So I'm shooting for 230 mA drop and I hope my calibration resistor will get it to "look" like 70 mA on the meter. Today on my dummy load with 100 watts out on 80 I measured 220 mA on the meter; this is 143 watts input or 70% efficiency. This is a bit higher than I would expect (I think the meter is reading LOW), but I think it is more important to get the 70 mA accurate on the meter.
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> If I stick with the 220 ohm resistor as the calibrator the 70 mA is at the 0.08 A setting on the dial. NOW all the currents are a bit high, and with 100 watts out is reads more like 240 mA or 155 watts input (about 64% efficiency). This is closer to "accurate"; maybe I

will just stick with this?
>
> paul
>
> ps I think this discussion is great. Thanks for all your help!!
>
>

20377. Re: [DrakeRadio] 2-B passband tuning width lever removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 03:04:38 UTC
From: Ethan Blanton
Topic: 20373 Message: 20377

Garey Barrell spake unto us the following wisdom:
> The brass tube is the coupling. It has a flat piece of spring steel
> inside (don't lose it, it's loose in there) that makes the 'flat' for
> the shaft.

Ah hah! I've even seen this on the list several times, re: the R-4 I
believe. I didn't put two and two together that the 2-B might be the
same coupling.

> The PC board IS rather fragile. I grasp the shaft on either side of
> the coupling, then press my thumbs together to exert pressure. Much
> safer than yanking on it! Another method is to use a screwdriver to
> pry against the switch frame. All you have to do is get it started.
> It's been in that position for 50 years, so it's a little cranky to
> start.

I don't see any way to grip the shaft on either side of the tubing, it
covers the entire length from the switch. I can get a screwdriver in
there to pry between the switch and the tubing, though -- there's even
a break in some sort of collar on the shaft underneath where I can
slip the blade in, I think.

This sounds like a job for the beginning of a troubleshooting session,
though, not the end, so I'm not going to tackle it tonight!

Ethan

20378. Re: [DrakeRadio] TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 04:26:38 UTC
From: David Nichols
Topic: 20370 Message: 20378

Garey and Steve,
After I sent the last email on my 10 meter measurements I was putting the case on it and wrapping things up. Thats when I noticed the slide switch was in rcvr position. I took a break and came back and installed a switch lock on that thing. I realigned it and things are much better now. I still only get about S7 on the low end of the band with the calibrator but the generator drive for S9 is way different.
@ 28.5 it took -67 dBm and .096 mV
@ 29.00 it took -70 dBm and .068 mV
@ 29.6 it took -70 dBm and .068 mV

Garey I dont know what the mV is except the voltage measurement for the dBm in the setup for my machine. I use dBm unless instructed to use the voltage settings. It does have uV at a lot lower level. Based on what I have taught myself I believe a -70 dBm level for S9 is good. Like I said before, Im a Millwright, give me a rock and a railroad spike and I can make things happen. This radio thing is a hobby and I am basically self taught. So I like to say that I know just enough to be dangerous. The school of hard knocks has bit me more than once.
David - KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, April 24, 2014 7:04 PM
Subject: Re: [DrakeRadio] TR-4CW on 10 meters

David -

I'm going to assume you mean 65.3 'micro' (u)volts and not 'milli' (m)volts.

The 'typical' should be ~ 50 uV for and S-9. That is not a 'proof' test. The real proof test
is, 'do you get a noise peak when you adjust the RF TUNE with no antenna?' 'Does the noise level increase when you connect an antenna?' If either or both of these is true, button it up.
You have all the sensitivity you can use. There are many things that can affect this type of
test, and I wouldn't worry about it.

When you get the R-4B up and running, compare them on 10M using the same antenna. NOT at the
same time, obviously..... Don't worry so much about the S-Meter readings, just how a 'real' signal sounds on one or the other. S-Meters are far from calibrated devices.

As for the Wattmeters, a man with two watches never really knows what time it is!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok Garey I got my short figured out and did my alignment using the load this time.
> I have read somewhere that I should probably see an S9 signal level on 10 meters from the calibrator.
> after going through this I wonder if S7 isnt good enough.
> I get a S7 from the calibrator signal on all three portions of the band.
> I dont recall what generator level you guys said should give me an S9 but this is what I got.
> To get an S9 reading on my S meter
> @ 28.5 it took -50.7 dBm or 65.3mV
> @ 29.0 it took -52.7 dBm or 57.8mV
> @ 29.6 it took -51dBm or .631mV
>
> She gave me 140 watts to the dummy load with the Bird 250 slug. My IFR only gave it 130 watts.
>
> Im to the point that maybe I should leave well enough alone.
>
> Anyway, I have an R4-B to play with now. Something new to shine up and check out. No, Im not going to go Marine Corps on it and whip out the Brasso. I think the deck will clean up nicely with a damp cloth on this one. Ill see what kind of trouble I can get into on this next.
> David, KX7C
>
>

[Non-text portions of this message have been removed]

20379. Re: [DrakeRadio] TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 07:29:17 UTC
From: Richard Knoppow
Topic: 20370 Message: 20379

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, April 24, 2014 9:26 PM
Subject: Re: [DrakeRadio] TR-4CW on 10 meters

Garey and Steve,
After I sent the last email on my 10 meter measurements I
was putting the case on it and wrapping things up. Thats
when I noticed the slide switch was in rcvr position. I took
a break and came back and installed a switch lock on that
thing. I realigned it and things are much better now. I
still only get about S7 on the low end of the band with the
calibrator but the generator drive for S9 is way different.
@ 28.5 it took -67 dBm and .096 mV
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Garey I dont know what the mV is except the voltage
measurement for the dBm in the setup for my machine. I use
dBm unless instructed to use the voltage settings. It does
have uV at a lot lower level. Based on what I have taught
myself I believe a -70 dBm level for S9 is good. Like I said
before, Im a Millwright, give me a rock and a railroad spike
and I can make things happen. This radio thing is a hobby
and I am basically self taught. So I like to say that I know
just enough to be dangerous. The school of hard knocks has
bit me more than once.
David - KX7C

If these are MILI-volt measurements move the decimal
over three places to the right for MICRO-volts. Now, this is
what the signal generator reads but what it actually at the
antenna terminals depends on the impedance of the generator
and receiver and wether the generator output is calibrated
with the assumption that its working into a matched load.
You will have to do some research on the generator to know
whether the output calibration is meaningful.
The S-meter on the TR-4 and R4XB is calibrated to read
S-9 from about 30 micro-volts. This is not exact but both
of mine are pretty close. Note that there is no standard
for the value of S units in db or in microvolts. A sort of
defactor standard is S-9 equals 50 micro-volts and each S
unit equals 6db but different manufacturers have used values
from about 25uV to 100uV for S-9 and S units of anywhere
from about 4db to 6db. In any case check the calibration

of the generator because the values you have are a little high according to the Drake book. I think this is likely a mesurement error and not low sensitivity.
The sensitivity of the TR-4 is speced at 0.5 microvolts for a 10db signal plus noise to noise ratio. This is excellent for a receiver with about a 3 khz bandwidth.
I have never measured the input impedance of my TR-4 but have mesured the R4XB and found it very close to 50 ohms when the preselector is peaked at the measurement frequency. The TR-4 is likely the same.
While the method of measuring signal to noise is pretty straight forward knowing what the voltage at the antenna terminals is with any accuracy is not so simple because you have to know other things. The fact that you get pretty consistent readings over a wide frequency range is a good sign. I will copy Garrey, if the noise goes up when you connect the antenna and you can peak it with the preselector you are doing fine. The receiver in the TR-4 is, btw, a very good one.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20380. Thankyou! Another Drake "On Air"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 08:44:40 UTC
From: Steve VK2SJA
Topic: 20370 Message: 20380

Hi Guys,

A very quick thank-you to everyone on this list. Who over the last four months patiently answered my dumb questions and supported me every step of the way.

I can now report that the Drake TR-4C at radio station VK2SJA was finally put to air this afternoon after one last round of alignments. The test was only across town on a prearranged schedule using low power with someone I can trust to give accurate on-air reports. Both RX and TX signal quality are excellent. The radio is making very good power now on all bands.

And with no brand bias or exaggeration I would go so far as to say that the receiver is shaping up as something very special indeed. I can honestly say that its the nicest thing I've ever listened to (but maybe that's because I can't afford $10K radios?)

So thanks again everyone. Of course a *very* special thank-you must go to Garey. Without his encyclopedic knowledge of all things Drake and most importantly his most excellent TR-4C Service Guide this would not have been possible.

Gents if you are working on an older Drake you simple *must* get Garey's service guides. Simply indispensable. Cheap too!

I'll report back again after I've made a few contacts.

73, Steve
VK2SJA

PS. Garey, I fixed to S-Meter downward swing/sticking problem on warm-up by throwing in a 1N4148 between R187 and the meter itself. Nothing bad has happened (so far) and it seems to work a treat. R187 had to be re-adjusted for S9+60dB FSD. No doubt to compensate for the diode voltage drop. The S-Meter Zero adjustment on the side of the radio takes a little getting use to now. As you can no longer adjust above and below the zero point. You have to start high and drop down finding the spot at which you hit (nearly) zero and then go no further. But once you get used to it, it's no big deal. I guess the non-linearity of the diode may have messed up the S-Meter calibration. To be honest I should have checked this before I made the mod but didn't. I checked it only after with a step-attenuator and an Elecraft signal generator that provides S9 50uV. The meter reads high for S9 (that should keep them happy ;-), 6dB steps drop by a sensible 1 S-point for most of the scale. In short... Meh! It's not overly accurate. But I've not seen an S-Meter that was. So I judge no worse than most other S-meters I've played with. And it doesn't stick!! So unless you tell me that this mod will cause havoc with AGC/AVC or some such I'm inclined to

leave it as is.

Oh, almost forgot. V17, I can't tell you if it's a 6AQ5 or a 6AQ5A. All the markings seem to have been "cleaned" off this tube. At least there are none visible that I can see (not my doing this time). The only replacement I have is actually a GE 6005??? Not being sure of the substitution and since the radio is working I left it alone.

73, Steve

20381. Re: [DrakeRadio] 2-B passband tuning width lever removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 13:42:48 UTC
From: Garey Barrell
Topic: 20373 Message: 20381

Ethan Blanton wrote:
> Garey Barrell spake unto us the following wisdom:
>> The brass tube is the coupling. It has a flat piece of spring steel
>> inside (don't lose it, it's loose in there) that makes the 'flat' for
>> the shaft.
> Ah hah! I've even seen this on the list several times, re: the R-4 I
> believe. I didn't put two and two together that the 2-B might be the
> same coupling.
>> The PC board IS rather fragile. I grasp the shaft on either side of
>> the coupling, then press my thumbs together to exert pressure. Much
>> safer than yanking on it! Another method is to use a screwdriver to
>> pry against the switch frame. All you have to do is get it started.
>> It's been in that position for 50 years, so it's a little cranky to
>> start.
> I don't see any way to grip the shaft on either side of the tubing, it
> covers the entire length from the switch. I can get a screwdriver in
> there to pry between the switch and the tubing, though -- there's even
> a break in some sort of collar on the shaft underneath where I can
> slip the blade in, I think.

You're correct of course. My going from memory has gotten me into more trouble.... :-) I was
thinking of the R-4 series, where there IS room to grab the shaft of the control. A thin blade
inserted between the switch bushing (I was 'partially' right!) to pry against. As I said, you
just have to break loose the corrosion that has built up, after which it will pull off
relatively easily.

>
> This sounds like a job for the beginning of a troubleshooting session,
> though, not the end, so I'm not going to tackle it tonight!

Good plan! :-)

73, Garey - K4OAH
Glen Allen, VA

20382. Re: [DrakeRadio] TR-4CW on 10 meters

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 14:07:02 UTC
From: Garey Barrell
Topic: 20370 Message: 20382

David -

OK. Just terminology, but it DO make a difference! :-) The first key is that we are discussing 'ratios' relative to one milliwatt, the 'm' in dBm.

-70 dBm is 70 dB below one (1) milliwatt (mW) into 50 ohms. It is equivalent to 71 microvolts
(uV) across 50 ohms, and 0.1 nanowatts (nW) into 50 ohms.

Our 'reference' is 50 uV, which is -73 dBm, so you are certainly 'in the ballpark', and well
within the accuracy of the S-Meter circuitry.

I have a lot of respect for machinists. We had precision machinists (the other end of THAT spectrum) at NRAO who routinely produced pieces to tolerances of less than 0.0005".

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Garey and Steve,
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> David - KX7C
>
>
>
>
> _____

> From: Garey Barrell <k4oah@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, April 24, 2014 7:04 PM
> Subject: Re: [DrakeRadio] TR-4CW on 10 meters
>
>
>
>
> David -
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> I'm going to assume you mean 65.3 'micro' (u)volts and not 'milli' (m)volts.
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> The 'typical' should be ~ 50 uV for and S-9. That is not a 'proof' test. The real proof test
> is, 'do you get a noise peak when you adjust the RF TUNE with no antenna?' 'Does the noise
> level increase when you connect an antenna?' If either or both of these is true, button it up.
> You have all the sensitivity you can use. There are many things that can affect this type of
> test, and I wouldn't worry about it.
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> When you get the R-4B up and running, compare them on 10M using the same antenna. NOT at the
> same time, obviously..... Don't worry so much about the S-Meter readings, just how a 'real'
> signal sounds on one or the other. S-Meters are far from calibrated devices.
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> As for the Wattmeters, a man with two watches never really knows what time it is!!! :-)
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> 73, Garey - K4OAH
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>> Anyway, I have an R4-B to play with now. Something new to shine up and check out. No, Im not going to go Marine Corps on it and whip out the Brasso. I think the deck will clean up nicely with a damp cloth on this one. Ill see what kind of trouble I can get into on this next.
>> David, KX7C
>>

20383. Re: [DrakeRadio] Thankyou! Another Drake "On Air"

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 16:32:31 UTC
From: Steve Wedge
Topic: 20370 Message: 20383

Congrats, Steve! Hope to work you with my B Twins one if these days!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 25, 2014, at 4:44 AM, "Steve VK2SJA" <vk2sja@...> wrote:
>
> Hi Guys,
>
> A very quick thank-you to everyone on this list. Who over the last four
> months patiently answered my dumb questions and supported me every step of
> the way.
>
> I can now report that the Drake TR-4C at radio station VK2SJA was finally
> put to air this afternoon after one last round of alignments. The test was
> only across town on a prearranged schedule using low power with someone I
> can trust to give accurate on-air reports. Both RX and TX signal quality
> are excellent. The radio is making very good power now on all bands.
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> And with no brand bias or exaggeration I would go so far as to say that
> the receiver is shaping up as something very special indeed. I can
> honestly say that its the nicest thing I've ever listened to (but maybe
> that's because I can't afford $10K radios?)
>
> So thanks again everyone. Of course a *very* special thank-you must go to
> Garey. Without his encyclopedic knowledge of all things Drake and most
> importantly his most excellent TR-4C Service Guide this would not have
> been possible.
>
> Gents if you are working on an older Drake you simple *must* get Garey's
> service guides. Simply indispensable. Cheap too!
>
> I'll report back again after I've made a few contacts.
>
> 73, Steve
> VK2SJA
>
> PS. Garey, I fixed to S-Meter downward swing/sticking problem on warm-up
> by throwing in a 1N4148 between R187 and the meter itself. Nothing bad has
> happened (so far) and it seems to work a treat. R187 had to be re-adjusted
> for S9+60dB FSD. No doubt to compensate for the diode voltage drop. The
> S-Meter Zero adjustment on the side of the radio takes a little getting
> use to now. As you can no longer adjust above and below the zero point.
> You have to start high and drop down finding the spot at which you hit
> (nearly) zero and then go no further. But once you get used to it, it's no

> big deal. I guess the non-linearity of the diode may have messed up the
> S-Meter calibration. To be honest I should have checked this before I made
> the mod but didn't. I checked it only after with a step-attenuator and an
> Elecraft signal generator that provides S9 50uV. The meter reads high for
> S9 (that should keep them happy ;-), 6dB steps drop by a sensible 1
> S-point for most of the scale. In short... Meh! It's not overly accurate.
> But I've not seen an S-Meter that was. So I judge no worse than most other
> S-meters I've played with. And it doesn't stick!! So unless you tell me
> that this mod will cause havoc with AGC/AVC or some such I'm inclined to
> leave it as is.
>
> Oh, almost forgot. V17, I can't tell you if it's a 6AQ5 or a 6AQ5A. All
> the markings seem to have been "cleaned" off this tube. At least there are
> none visible that I can see (not my doing this time). The only replacement
> I have is actually a GE 6005??? Not being sure of the substitution and
> since the radio is working I left it alone.
>
> 73, Steve
>
>

[Non-text portions of this message have been removed]

20384. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 18:09:45 UTC
From: <rochep@...>
Topic: 20317 Message: 20384

What is in there now is the 3.3 ohm shunt (the original one, reads 3.3) and R38 is 220 ohms. Depending on how I tilt my head, and how long the TX is turned on, the "70 mA" reading is just a tad BELOW the 0.08 mark. But I KNOW this is 70 mA. This is good enough for me, if I re-adjust the bias on the AC4 i just have to remember to shoot for JUST below the 0.08 mark.

Thanks.

p

[Non-text portions of this message have been removed]

20385. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 18:28:04 UTC
From: Garey Barrell
Topic: 20317 Message: 20385

Paul -

OK. Sounds good. If you haven't put it together yet, I'd like to know the voltage you measure
across the meter itself, and the meter + R38 together. I know the meters varied considerably
(by modern standards) and I'm curious what yours is reading. Preferably at 0.07A and at whatever your fully loaded current is.

One of the (many) faults of engineers is we like to have the numbers come out 'right'! :-)

If it's already back together, never mind. I'll just try an remember for my next opportunity.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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rochep@... wrote:
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>
> Thanks.
>
> p
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20386. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 18:35:16 UTC
From: Doug Coffman
Topic: 20317 Message: 20386

Here's a stupid question, the meter in my T-4XC has a little longer hash mark at 70ma. Does the T-4XB have the hash mark on its plate meter?

73,

Doug - N9XTC

Sent from my iPhone

> On Apr 25, 2014, at 14:28, Garey Barrell <k4oah@...> wrote:
>
> Paul -
>
> OK. Sounds good. If you haven't put it together yet, I'd like to know the voltage you measure
> across the meter itself, and the meter + R38 together. I know the meters varied considerably
> (by modern standards) and I'm curious what yours is reading. Preferably at 0.07A and at
> whatever your fully loaded current is.
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> 73, Garey - K4OAH
> Glen Allen, VA
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> >
> > Thanks.
> >
> > p
> >
> > [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20387. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-25 18:53:15 UTC
From: Garey Barrell
Topic: 20317 Message: 20387

Doug -

The mark 'above' the scale at 70 mA appeared with the 500 mA full scale meter, fairly early in
the T-4XB production. It was carried through to the T-4XC.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Doug Coffman wrote:
> Here's a stupid question, the meter in my T-4XC has a little longer hash mark at 70ma. Does the T-4XB have the hash mark on its plate meter?
>
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20388. Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 01:40:15 UTC
From: <rochep@...>
Topic: 20317 Message: 20388

Garey,

It's back together now, but I am sure soon enough I'll have it apart and check this. I assume you mean DC voltage from ground to EACH pin of the meter alone or from one end of meter to the other end of R38?

Tonight I am painting my dial hoods/light diffuser. Got my new Lee Filter material today, with nice white diffuser and new Lee filter it looks SWEET!!

paul

[Non-text portions of this message have been removed]

20389. Re: [DrakeRadio] Re: Setting 70 mA bias for T4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 02:02:06 UTC
From: Garey Barrell
Topic: 20317 Message: 20389

Paul -

Cool! Nothing like nice new dial filters! :-) Did you switch over to #755 bulbs?? You won't ever have to replace them!

Just across the meter, and then across the meter and R38 combined. Should be less than 2 VDC
with 500 mA of current. Just whatever voltage you read at your confirmed 70 mA and then again
loaded to full power, whatever that current might be. Just trying to get a handle on just how
far these meters 'roam' from the nominal specs.

Glad you got it working, just enjoy using it for a while.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> Garey,
>
> It's back together now, but I am sure soon enough I'll have it apart and check this. I assume you mean DC voltage from ground to EACH pin of the meter alone or from one end of meter to the other end of R38?
>
> Tonight I am painting my dial hoods/light diffuser. Got my new Lee Filter material today, with nice white diffuser and new Lee filter it looks SWEET!!
>
> paul
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
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>

20390. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 03:52:08 UTC
From: <rochep@...>
Topic: 20262 Message: 20390

As I mentioned, I replaced this 60 uF electrolytic with a 47 uF I had laying around. I have just started noticing that as I use my rig the VOX delay on CW seems to be changing, getting LONGER to trip back to RX after I am sending. I also noticed (for the first time just now) that the TX seemed to get "stuck" on transmit; even going from CW to TUNE did not "snap" it back to RX and when I fiddled with the VOX DELAY on the back panel it finally went back to RX.

Garey mentioned by using a 47 uF cap I might "upset the VOX for CW". Is this the kind of symptom we are talking about (or is this just a dirty sticky relay that needs cleaning)?

paul

[Non-text portions of this message have been removed]

20391. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 04:47:02 UTC
From: Richard Knoppow
Topic: 20262 Message: 20391

```
----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, April 25, 2014 8:52 PM
Subject: [DrakeRadio] Re: T4XB 60uf Cap??

> As I mentioned, I replaced this 60 uF electrolytic with a
> 47 uF I had laying around. I have just started noticing
> that as I use my rig the VOX delay on CW seems to be
> changing, getting LONGER to trip back to RX after I am
> sending. I also noticed (for the first time just now) that
> the TX seemed to get "stuck" on transmit; even going from
> CW to TUNE did not "snap" it back to RX and when I fiddled
> with the VOX DELAY on the back panel it finally went back
> to RX.
>
> Garey mentioned by using a 47 uF cap I might "upset the
> VOX for CW". Is this the kind of symptom we are talking
> about (or is this just a dirty sticky relay that needs
> cleaning)?
>
> paul
>
I think Garrey mentioned that specs on old
electrolytics were not very tight. Mostly they were speced
to have some minimum usually around -20% and maybe 80% or
even more maximum. One reason is that the value of
electrolytics changes in use. When they have been stored
without charge for a long time the value tends to go down
but goes back up under charge when the layers re-form.
Modern electrolytics are supposed to be more stable than the
old ones but I think the same thing happens. In any case
47uF is about 80% of 60uF and should not really make a
difference. Of course you can always put a larger one in.
If it worries you do that.
Second note, the setting for both VOX and VOX delay will
be different for CW and phone. Its a bit of a PITA if you
work both to have to re-adjust it but you do. I have also
had problems with the VOX hanging in CW. After adjusting the
delay a couple of times I stopped but I never knew if it was
just the adjustment or working the pot that did it. When set
properly the VOX works smoothly for either phone or CW but
it may take some experimenting to find the ideal settings.
I am sure Drake could have cured a lot of minor problems
(note that no one ever says problem any more, its always
```

issue) by making the box twice the size and three times the price although Collins did both and has even more problems ([pardon, issues).

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20392. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 10:26:47 UTC
From: n1ohn@yahoo.com
Topic: 20262 Message: 20392

I'd replace that 47uf cap your right at the fringe of the 60uf tolerance point. Garey pointed out to me that Mauser has 68uf at 250v for around $1.50 for I was having problems finding a 60uf.

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20393. T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 10:51:35 UTC
From: <n1ohn@...>
Topic: 20393 Message: 20393

OK my T4XB is starting to take shape now :) went from nothing to now almost working :) my current problem may not actually be a problem other then bad tubes but ..... I am going to replace all tubes in the radio anyway for I got it off eBay and don't know the state of the tubes in the radio so I'd rather just get all new good tubes. I'm currently abel to load up the radio on 10m into a dummy load and the max out is 45W then it will drop to 20w then up to 30 then down again is this a sign of bad final tubes or something more?

Thanks all!!
Dave

[Non-text portions of this message have been removed]

20394. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 12:37:45 UTC
From: Steve Wedge
Topic: 20393 Message: 20394

It could be bad finals, but could also be due to a mistuned trimmer or a need for neutralization.

Check both of those first before spending big bucks on new finals. The symptom of output dropping does strongly suggest bad tubes - assuming you have not changed any of the other settings.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Apr 26, 2014, at 6:51 AM, <n1ohn@...> wrote:
>
> OK my T4XB is starting to take shape now :) went from nothing to now almost working :) my current problem may not actually be a problem other then bad tubes but ..... I am going to replace all tubes in the radio anyway for I got it off eBay and don't know the state of the tubes in the radio so I'd rather just get all new good tubes. I'm currently abel to load up the radio on 10m into a dummy load and the max out is 45W then it will drop to 20w then up to 30 then down again is this a sign of bad final tubes or something more?
>
>
> Thanks all!!
> Dave
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20395. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 13:32:39 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20395

Thanks Steve .... neutralizing checks OK. Bad trimmer?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20396. Re: [DrakeRadio] Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 13:53:39 UTC
From: Garey Barrell
Topic: 20262 Message: 20396

Paul -

That idea was kind of an afterthought. One function of C129 is to keep the ~1 kHz audio tone in
V9a from migrating over to V9b via the power bus. This tone is intended to be 'keyed' along with the transmitter by D8 biased as a shunt to ground. Any leakage 'around' D8, (as via the
power bus,) results in a 'backwave', or the audio tone at some reduced level.

Since this same tone when amplified (V10a), rectified (D10), and the resulting DC integrated
(C141), is used to hold the VOX on in CW, any leakage around D8 can accumulate enough to 'keep'
K1 energized.

All that said, 47 uF 'seems' like it should be adequate. Caps of that era were typically spec'd
at +80/-20%, and perhaps Drake was taking advantage of the typical considerably higher than marked capacitance?

If I was working in this one, I'd add another 47 uF cap across the one that's in there and see
if that 'fixes' the problem. The voltage at C141 can tell you what's happening, with at least an
11 M input impedance meter. Tom's (Hayseed) replacement is 60 uF, and has an additional 22 uf
that's not used, I'd add that in parallel with the 60.

Another possible way to improve this situation would be to reduce the value of R94 to 470k or
even 330k to bias C141 and thus V10b a little more negative.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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rochep@... wrote:
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> paul
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20397. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 14:03:52 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20397

Tuned the radio up again today was able to get 50w out shut it down for 15min and tried again now I can't get more then 10w out.

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20398. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 14:39:53 UTC
From: Garey Barrell
Topic: 20393 Message: 20398

Dave -

You don't mention the output on other bands, but 10M is 'always the first to go' with weak PA
tubes. Assuming alignment and neutralization have been completed, that's most likely.

Alignment tells you a lot. Do the trimmers and slugs peak as they should, i.e., have both an UP
and a DOWN side to the peak.? The trimmers especially on 10M tune near minimum capacitance, resulting in very light tension on the adjustment. Mechanical shock and temperature cycling both affect these adjustments unless they are 'locked' with clear fingernail polish or other
lacquer when alignment is complete. You can move the RF TUNE control a little to require more
capacitance to tighten them up a bit, especially if you don't use the top 10M band segment.

Wild variations in power are more likely a bad resistor or solder joint somewhere. Check the
value and condition of the 15 ohm and 68 ohm resistors in the PA compartment, examine all solder
connections, including the PLATE caps of the PA tubes. Obviously do the screwdriver survey of
all hardware if not already done!

I would strongly advise that you NOT 'replace all the tubes'..... This is never a good idea,
for several reasons. They are NOT sparkplugs that all deteriorate at the rate. Foremost is that
they are getting expensive, and 'they ain't making any more' of most of them. Realizing the fact that even NOS tubes are not always good, replacing them all at once could introduce multiple problems, making each one more difficult to figure out. New tubes should be installed
one at a time and the radio checked out each time one is swapped. If the 'new' tube doesn't appreciably change the operation of the radio, put the old one back in and set the new one aside. Don't be mislead by what might be an alignment change when subbing the RF tubes. When
replacing the PA tubes, turn the BIAS control up to increase the voltage applied and cut the
tubes off. After warm up, reduce the BIAS voltage to get the recommended 70 mA of idle current. Then try to tune up in TUNE position. If ok, check the neutralization immediately. If
you carefully dip the plate at something less than max output, (turn down the GAIN control,)
then watch the output power while you turn the PLATE control slightly one way. If the power decreases ONLY, re-dip carefully and while watching the output turn the PLATE control the other

way. If power decreases only, you're in good shape. If however the power INCREASES even a bit
before dropping off, in either direction, neutralization is not correct and C49 will require
adjustment.

When you've swapped out all the tubes, one at a time, put the 'new' tubes that had no effect on
the radio operation away in a safe place. Then if you have a problem later, you have a reasonable expectation that your 'spare' tube at least won't make things worse, and if it doesn't correct the problem you know the trouble lies elsewhere!

73, Garey - K4OAH
Glen Allen, VA

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n1ohn@... wrote:
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>
>
> Thanks all!!
> Dave
>
>

20399. TR-4C Problems on 80 and 40

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 15:09:47 UTC
From: <wb6mzs@...>
Topic: 20399 Message: 20399

Hi all,
I have a TR4C that has a problem on 80 and 40. It is deaf, takes about 200 microvolts to make the S meter move and makes only 5 watts out on both bands. All the other bands make full rated output and tune by the book. The receiver is a bit low on sensitivity on 20-10 (about S7 for 50 microvolts) but otherwise OK. The calibrator signal is good on all bands including 80 and 40. So am I still dealing with a bad contact somewhere? This unit was in storage for some time and recently put back in service.

I've cleaned all the switches/contacts, put in fresh set of tubes, and using a rebuilt AC-4 with proper voltages.

Any suggestions and advice will be most welcomed.
73
Mike
wb6mzs

[Non-text portions of this message have been removed]

20400. Re: T4XB 60uf Cap??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 15:49:15 UTC
From: <rochep@...>
Topic: 20262 Message: 20400

i need to order some parts from Mouser anyway (need a Switchcraft mic plug for PTT) and I'd like to buy new 3.3 ohm meter shunt resistors anyway), so I'll just put in the 68 uF cap from Mouser and take out the 47. All the other points I'll keep in mind in case I still see the problem.

p

[Non-text portions of this message have been removed]

20401. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 16:08:28 UTC
From: <n1ohn@...>
Topic: 20393 Message: 20401

Garey Thanks!!!

1) I have the same variation in power at 3.5 I have not tried any other bands at this point.

2) Sorry for the misunderstanding in replacing tubes. I intend to replace them one at a time when I get that far into the project.
3) I checked ALL of the resistors in the PA stage and all are good.
4) neutralization checks ok.
5) no alignment done to the radio at this point. I'm not sure if I should try it now?

Let me recap were I am at this point with the radio.

1) Ebay seller said that one 6JB6 was bad.

2) Received radio and found that coil RFC5 was burnt to crisp and one of the parasitic resistors was disconnect from the coil.

3) wound up another coil and installed it. also was able to get a used working coil but I have not installed it. The original coil shows 2.40oms and my hand wound coil is 2.55oms I think that's good enough no?

4) replaced the two parasitic resistors with new ones. The original ones were over 80ohms each. I presume this might be why the coil went and maybe the tubes?

5) replaced the 60uf and 10uf caps with my temp film caps.

hope this helps

I'm now going to go check YouTube and make sure I'm neutralizing correctly :)

Thanks all!!!!!!! :)

Dave

---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote :

Dave -

You don't mention the output on other bands, but 10M is 'always the first to go' with weak PA
tubes. Assuming alignment and neutralization have been completed, that's most likely.

Alignment tells you a lot. Do the trimmers and slugs peak as they should, i.e., have both an UP
and a DOWN side to the peak.? The trimmers especially on 10M tune near minimum capacitance, resulting in very light tension on the adjustment. Mechanical shock and temperature cycling both affect these adjustments unless they are 'locked' with clear fingernail polish or other

lacquer when alignment is complete. You can move the RF TUNE control a little to require more
capacitance to tighten them up a bit, especially if you don't use the top 10M band segment.

Wild variations in power are more likely a bad resistor or solder joint somewhere. Check the
value and condition of the 15 ohm and 68 ohm resistors in the PA compartment, examine all solder
connections, including the PLATE caps of the PA tubes. Obviously do the screwdriver survey of
all hardware if not already done!

I would strongly advise that you NOT 'replace all the tubes'..... This is never a good idea,
for several reasons. They are NOT sparkplugs that all deteriorate at the rate. Foremost is that
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the radio operation away in a safe place. Then if you have a problem later, you have a
reasonable expectation that your 'spare' tube at least won't make things worse, and if it
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73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

n1ohn@... mailto:n1ohn@... wrote:
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>
>
> Thanks all!!
> Dave
>
>

[Non-text portions of this message have been removed]

20402. Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 17:19:57 UTC
From: <prosolar@...>
Topic: 20402 Message: 20402

Well guys, the subject line says it all.

in case you haven't been following the thread about my broken R4A, I'll cut to the chase.

The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.

That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.

So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?

If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.

Scrape around the junk box and see if you have one laying in the bottom.

Thanks

Mike, wb8vge

[Non-text portions of this message have been removed]

20403. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 18:03:22 UTC
From: Steve Wedge
Topic: 20402 Message: 20403

Does anyone know if there's the same part lurking on a t-4xb? I have a carcass. Since there's no bfo, I'm rather doubting it but who knows?

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 26, 2014, at 1:19 PM, <prosolar@...> wrote:
>
> Well guys, the subject line says it all.
>
>
> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
>
>
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> Thanks
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> Mike, wb8vge
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> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20404. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 18:15:11 UTC
From: Garey Barrell
Topic: 20402 Message: 20404

Mike -

If you are to this point, pull the can and open it up. This is a large inductance, probably with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break, especially anywhere the wire is nicked. These points are often right at the terminal, which is
visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder. Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
rubber insulator between the header for the can, and over time that edge cuts through the rubber
shorting the lead to the ferrite.

Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
can widen the search a bit.

73, Garey - K4OAH
Glen Allen, VA

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> Mike, wb8vge
>
>
>

20405. Re: [DrakeRadio] TR-4C Problems on 80 and 40

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 18:42:23 UTC
From: Garey Barrell
Topic: 20399 Message: 20405

Mike -

I would start by carefully examining the fifth BAND switch wafer (from the front panel) on both
sides for corrosion and contact. I suspect you have a dirty switch or sprung contact. Possibly
bad solder. Hopefully 'cleaning all the switches' didn't involve any tools around the wafer
switch contacts, just DeoxIT or other good contact cleaner.

Your 'fresh set of tubes' was a bad idea. These are NOT spark plugs, and NEVER all go bad at
the same time!!!!!!!! See my post earlier today. You have complicated the diagnosis
considerably.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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wb6mzs@... wrote:
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>
> I've cleaned all the switches/contacts, put in fresh set of tubes, and using a rebuilt AC-4 with proper voltages.
>
> Any suggestions and advice will be most welcomed.
> 73
> Mike
> wb6mzs
>

20406. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 18:44:02 UTC
From: Garey Barrell
Topic: 20402 Message: 20406

Nope....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
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>> [Non-text portions of this message have been removed]
>>
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>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20407. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 18:58:08 UTC
From: Garey Barrell
Topic: 20393 Message: 20407

Dave -

More likely one of the 6JB6s shorted and drew LOTS of current through RFC5 and others, and the
heat generated fried the parasitic suppressor resistors.

Do I understand correctly that the power is jumping on 80M also?? You may have one or more shorted turns in RFC6 causing it to change value intermittently. It's certainly suspect under
the assumption above. RFC5 was just the weakest link!! :-)

DC resistance isn't particularly critical in RFC5, the inductance is the important factor, so
yours should be fine.

I'd also be concerned about the condition of R36 as it's in that same chain that was severely
overloaded.

An intermittent is not going to be affected by alignment, unless one of the trimmers or caps is
shorting intermittently. Not high on the likelihood charts!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Garey Thanks!!!
>
>
> 1) I have the same variation in power at 3.5 I have not tried any other bands at this point.
>
> 2) Sorry for the misunderstanding in replacing tubes. I intend to replace them one at a time when I get that far into the project.
> 3) I checked ALL of the resistors in the PA stage and all are good.
> 4) neutralization checks ok.
> 5) no alignment done to the radio at this point. I'm not sure if I should try it now?
>
>
> Let me recap were I am at this point with the radio.
>
>

> 1) Ebay seller said that one 6JB6 was bad.
>
>
> 2) Received radio and found that coil RFC5 was burnt to crisp and one of the parasitic resistors was disconnect from the coil.
>
>
> 3) wound up another coil and installed it. also was able to get a used working coil but I have not installed it. The original coil shows 2.40oms and my hand wound coil is 2.55oms I think that's good enough no?
>
>
> 4) replaced the two parasitic resistors with new ones. The original ones were over 80ohms each. I presume this might be why the coil went and maybe the tubes?
>
>
> 5) replaced the 60uf and 10uf caps with my temp film caps.
>
>
> hope this helps
>
>
> I'm now going to go check YouTube and make sure I'm neutralizing correctly :)
>
>
> Thanks all!!!!!!! :)
>
>
> Dave
>
>
>
>
> ---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote :
>
>
> Dave -
>
> You don't mention the output on other bands, but 10M is 'always the first to go' with weak PA
> tubes. Assuming alignment and neutralization have been completed, that's most likely.
>
> Alignment tells you a lot. Do the trimmers and slugs peak as they should, i.e., have both an UP
> and a DOWN side to the peak.? The trimmers especially on 10M tune near minimum capacitance,
> resulting in very light tension on the adjustment. Mechanical shock and temperature cycling
> both affect these adjustments unless they are 'locked' with clear fingernail polish or other

> lacquer when alignment is complete. You can move the RF TUNE control a little to require more
> capacitance to tighten them up a bit, especially if you don't use the top 10M band segment.
>
> Wild variations in power are more likely a bad resistor or solder joint somewhere. Check the
> value and condition of the 15 ohm and 68 ohm resistors in the PA compartment, examine all solder
> connections, including the PLATE caps of the PA tubes. Obviously do the screwdriver survey of
> all hardware if not already done!
>
> I would strongly advise that you NOT 'replace all the tubes'..... This is never a good idea,
> for several reasons. They are NOT sparkplugs that all deteriorate at the rate. Foremost is that
> they are getting expensive, and 'they ain't making any more' of most of them. Realizing the
> fact that even NOS tubes are not always good, replacing them all at once could introduce
> multiple problems, making each one more difficult to figure out. New tubes should be installed
> one at a time and the radio checked out each time one is swapped. If the 'new' tube doesn't
> appreciably change the operation of the radio, put the old one back in and set the new one
> aside. Don't be mislead by what might be an alignment change when subbing the RF tubes. When
> replacing the PA tubes, turn the BIAS control up to increase the voltage applied and cut the
> tubes off. After warm up, reduce the BIAS voltage to get the recommended 70 mA of idle
> current. Then try to tune up in TUNE position. If ok, check the neutralization immediately. If
> you carefully dip the plate at something less than max output, (turn down the GAIN control,)
> then watch the output power while you turn the PLATE control slightly one way. If the power
> decreases ONLY, re-dip carefully and while watching the output turn the PLATE control the other
> way. If power decreases only, you're in good shape. If however the power INCREASES even a bit
> before dropping off, in either direction, neutralization is not correct and C49 will require
> adjustment.
>
> When you've swapped out all the tubes, one at a time, put the 'new' tubes that had no effect on
> the radio operation away in a safe place. Then if you have a problem later, you have a
> reasonable expectation that your 'spare' tube at least won't make things worse, and if it
> doesn't correct the problem you know the trouble lies elsewhere!

>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> n1ohn@... mailto:n1ohn@... wrote:
> > OK my T4XB is starting to take shape now :) went from nothing to now almost working :) my current problem may not actually be a problem other then bad tubes but ..... I am going to replace all tubes in the radio anyway for I got it off eBay and don't know the state of the tubes in the radio so I'd rather just get all new good tubes. I'm currently abel to load up the radio on 10m into a dummy load and the max out is 45W then it will drop to 20w then up to 30 then down again is this a sign of bad final tubes or something more?
>

20408. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 19:17:29 UTC
From: Mike
Topic: 20402 Message: 20408

Garey

How do you tell what pin is what on T11?

Some pins have continuity, others don't. From the chassis view there is one pin that looks like it has a "1" stamped into the phonelic(?)

There are two windings each one center tapped.

What pins are what ?

Mike wb8vge

Sent from my iPhone

> On Apr 26, 2014, at 2:15 PM, Garey Barrell <k4oah@...> wrote:
>
> Mike -
>
> If you are to this point, pull the can and open it up. This is a large inductance, probably
> with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break,
> especially anywhere the wire is nicked. These points are often right at the terminal, which is
> visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder.
> Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
> coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
> terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
> rubber insulator between the header for the can, and over time that edge cuts through the rubber
> shorting the lead to the ferrite.
>
> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
> can widen the search a bit.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

> prosolar@... wrote:
> > Well guys, the subject line says it all.
> >
> >
> > in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
> >
> >
> > The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
> >
> >
> > That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
> >
> >
> > So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
> >
> >
> > If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
> >
> >
> > Scrape around the junk box and see if you have one laying in the bottom.
> >
> >
> > Thanks
> >
> >
> > Mike, wb8vge
> >
> >
> >
>
>

[Non-text portions of this message have been removed]

20409. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 19:33:44 UTC
From: Mike
Topic: 20402 Message: 20409

Question
If the coil is open on the oscillator side of T11, why do I have voltage to the transistor as it comes from the center tap?

Mike wb8vge

Sent from my iPhone

> On Apr 26, 2014, at 2:15 PM, Garey Barrell <k4oah@mindspring.com> wrote:
>
> Mike -
>
> If you are to this point, pull the can and open it up. This is a large inductance, probably
> with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break,
> especially anywhere the wire is nicked. These points are often right at the terminal, which is
> visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder.
> Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
> coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
> terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
> rubber insulator between the header for the can, and over time that edge cuts through the rubber
> shorting the lead to the ferrite.
>
> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
> can widen the search a bit.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> prosolar@... wrote:
> > Well guys, the subject line says it all.
> >
> >
> > in case you haven't been following the thread about my broken R4A, I'll cut to the chase.

> >
> >
> > The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
> >
> >
> > That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
> >
> >
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> >
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> >
> > Scrape around the junk box and see if you have one laying in the bottom.
> >
> >
> > Thanks
> >
> >
> > Mike, wb8vge
> >
> >
> >
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>

[Non-text portions of this message have been removed]

20410. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 19:38:29 UTC
From: Garey Barrell
Topic: 20402 Message: 20410

Mike -

Do you have my B-Line CD??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike wrote:
> Garey
>
> How do you tell what pin is what on T11?
>
> Some pins have continuity, others don't. From the chassis view there is one pin that looks like it has a "1" stamped into the phonelic(?)
>
> There are two windings each one center tapped.
>
> What pins are what ?
>
> Mike wb8vge
>
> Sent from my iPhone
>
>> On Apr 26, 2014, at 2:15 PM, Garey Barrell <k4oah@...> wrote:
>>
>> Mike -
>>
>> If you are to this point, pull the can and open it up. This is a large inductance, probably
>> with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break,
>> especially anywhere the wire is nicked. These points are often right at the terminal, which is
>> visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder.
>> Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
>> coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
>> terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
>> rubber insulator between the header for the can, and over time that edge cuts through

the rubber
>> shorting the lead to the ferrite.
>>
>> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
>> can widen the search a bit.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> prosolar@... wrote:
>>> Well guys, the subject line says it all.
>>>
>>>
>>> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
>>>
>>>
>>> The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
>>>
>>>
>>> That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
>>>
>>>
>>> So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
>>>
>>>
>>> If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
>>>
>>>
>>> Scrape around the junk box and see if you have one laying in the bottom.
>>>
>>>
>>> Thanks
>>>
>>>
>>> Mike, wb8vge
>>>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20411. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 19:45:52 UTC
From: Garey Barrell
Topic: 20402 Message: 20411

Could be open from the CT to the 'other' end! The mica and ceramic cap in the lower right corner of the board, one end is tied together at the 330 ohm resistor. The other end of these
two caps are tied together and a wire to the transformer.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike wrote:
> Question
> If the coil is open on the oscillator side of T11, why do I have voltage to the transistor as it comes from the center tap?
>
> Mike wb8vge
>
> Sent from my iPhone
>
>> On Apr 26, 2014, at 2:15 PM, Garey Barrell <k4oah@...> wrote:
>>
>> Mike -
>>
>> If you are to this point, pull the can and open it up. This is a large inductance, probably
>> with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break,
>> especially anywhere the wire is nicked. These points are often right at the terminal, which is
>> visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder.
>> Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
>> coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
>> terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
>> rubber insulator between the header for the can, and over time that edge cuts through the rubber
>> shorting the lead to the ferrite.
>>
>> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
>> can widen the search a bit.

>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> prosolar@... wrote:
>>> Well guys, the subject line says it all.
>>>
>>>
>>> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
>>>
>>>
>>> The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
>>>
>>>
>>> That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
>>>
>>>
>>> So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
>>>
>>>
>>> If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
>>>
>>>
>>> Scrape around the junk box and see if you have one laying in the bottom.
>>>
>>>
>>> Thanks
>>>
>>>
>>> Mike, wb8vge
>>>
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> Yahoo Groups Links

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20412. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 19:59:05 UTC
From: Mike
Topic: 20402 Message: 20412

No,

I had one, I think for the tr3 but it's lost someplace in the office.

Mike

Sent from my iPhone

> On Apr 26, 2014, at 3:38 PM, Garey Barrell <k4oah@...> wrote:
>
> Mike -
>
> Do you have my B-Line CD??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Mike wrote:
> > Garey
> >
> > How do you tell what pin is what on T11?
> >
> > Some pins have continuity, others don't. From the chassis view there is one pin that looks like it has a "1" stamped into the phonelic(?)
> >
> > There are two windings each one center tapped.
> >
> > What pins are what ?
> >
> > Mike wb8vge
> >
> > Sent from my iPhone
> >
> >> On Apr 26, 2014, at 2:15 PM, Garey Barrell <k4oah@...> wrote:
> >>
> >> Mike -
> >>
> >> If you are to this point, pull the can and open it up. This is a large inductance, probably
> >> with a ferrite 'overcoat'. Big inductor means little wire, which has a tendency to break,
> >> especially anywhere the wire is nicked. These points are often right at the terminal,

which is
> >> visible 'in situ'. The cans are easy to open, remove a turn at the broken end and resolder.
> >> Another problem is wire against the ferrite shell, which has sharp edges, wearing off the enamel
> >> coating and shorting to the can. Lastly, when the can was assembled, the 'inside' end of the
> >> terminal was cut off with diagonal cutters, leaving a 'knife' edge sticking up. There is a thin
> >> rubber insulator between the header for the can, and over time that edge cuts through the rubber
> >> shorting the lead to the ferrite.
> >>
> >> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and up) and the R-4B, so you
> >> can widen the search a bit.
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> prosolar@... wrote:
> >>> Well guys, the subject line says it all.
> >>>
> >>>
> >>> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
> >>>
> >>>
> >>> The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
> >>>
> >>>
> >>> That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
> >>>
> >>>
> >>> So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
> >>>
> >>>
> >>> If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
> >>>
> >>>
> >>> Scrape around the junk box and see if you have one laying in the bottom.
> >>>
> >>>
> >>> Thanks

> >>>
> >>>
> >>> Mike, wb8vge
> >>>
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[Non-text portions of this message have been removed]

20413. AC-3 PS For Sale or Swap

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 20:12:52 UTC
From: EDEN MCCOLLOUGH
Topic: 20413 Message: 20413

To all,

I have a pretty decent Drake AC-3 power supply that I'd like to sell or swap. It is in very good condition. Serial number 18959. It has been powering my 'B' line quite nicely, but I had a chance to upgrade to a newer AC-4. The AC-3 has an amp keying line wired right in & works nicely. Also it has been recently been re-capped. This supply is excess to my needs now. Make an offer please...either buy or swap something. I will consider all offers. I could really use an MN 2000. I have more pics if wanted. Please email direct off list.

Thanks & 73...
Butch...K3AFR
k3afr@...

[Non-text portions of this message have been removed]

20414. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 22:04:17 UTC
From: Steve Wedge
Topic: 20402 Message: 20414

Didn't think so. I was on the road and away from schematics, but figured 50 kc means big inductor...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 26, 2014, at 2:44 PM, Garey Barrell <k4oah@...> wrote:
>
> Nope....
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Steve Wedge wrote:
> > Does anyone know if there's the same part lurking on a t-4xb? I have a carcass. Since there's no bfo, I'm rather doubting it but who knows?
> >
> > Steve Wedge, W1ES/4
> >
> >
> > Sent from my iPhone; please excuse any typographical malaprops.
> >
> >> On Apr 26, 2014, at 1:19 PM, <prosolar@...> wrote:
> >>
> >> Well guys, the subject line says it all.
> >>
> >>
> >> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
> >>
> >>
> >> The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
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> >> That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
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> >> So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
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> >> If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
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> >> Scrape around the junk box and see if you have one laying in the bottom.
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> >>
> >> Thanks
> >>
> >>
> >> Mike, wb8vge
> >>
> >> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20415. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 23:05:56 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20415

Garey R36 on board 6?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20416. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 23:14:59 UTC
From: Don Cunningham
Topic: 20402 Message: 20416

Garey,
This is likely a DUMB question, but I'll ask it anyway. An R4 s/n 5224 would have to be a late R4A, wouldn't it?? If so, I have the transformer Mike needs on a carcass. I have been outside all day, and hadn't seen his email till now. I got the carcass to help me "surgically transplant" the bandswitch and attached components into my pristine R4 that has the cracked wafer I asked about a long time ago. I'd be glad to help Mike and his friend if it would work.
73,
Don, WB5HAK
On 4/26/2014 1:15 PM, Garey Barrell wrote:
>
> Mike -
>
> If you are to this point, pull the can and open it up. This is a large
> inductance, probably
> with a ferrite 'overcoat'. Big inductor means little wire, which has a
> tendency to break,
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> at the terminal, which is
> visible 'in situ'. The cans are easy to open, remove a turn at the
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> Another problem is wire against the ferrite shell, which has sharp
> edges, wearing off the enamel
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> shorting the lead to the ferrite.
>
> Aside from this, T11 is the same in both the Late R-4A (s/n 4055 and
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> can widen the search a bit.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> prosolar@... wrote:
> > Well guys, the subject line says it all.

> >
> >
> > in case you haven't been following the thread about my broken R4A,
> I'll cut to the chase.
> >
> >
> > The BFO is not working. I replaced the capacitors, and even the
> single transistor. No joy.
> >
> >
> > That leave only one part left in the circuit. The T3 transformer. It
> looks like an IF can.
> >
> >
> > So, anyone have a R4A part pig? Or if fate favors the foolish, a new
> one?
> >
> >
> > If not, then the R4A i have will be a great AM shortwave receiver.
> With no BFO, no SSB or CW.
> >
> >
> > Scrape around the junk box and see if you have one laying in the bottom.
> >
> >
> > Thanks
> >
> >
> > Mike, wb8vge
> >
> >
> >
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>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20417. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-26 23:58:57 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20417

1) R36 is at 4ohms not the 2.7ohm so that will be replaced.

2) RCF6 is showing around 1.4ohms that's the same residents as RFC2 so I think that's OK no?

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20418. Re: [DrakeRadio] Need a part for my broken R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 01:50:35 UTC
From: Garey Barrell
Topic: 20402 Message: 20418

Steve-

It's in a can the same size as the other RF/IF cans.... It has a ferrite sleeve over the coil
that fits snugly into the can.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> Didn't think so. I was on the road and away from schematics, but figured 50 kc means big inductor...
>
> Steve Wedge, W1ES/4
>
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
>> On Apr 26, 2014, at 2:44 PM, Garey Barrell <k4oah@...> wrote:
>>
>> Nope....
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Steve Wedge wrote:
>>> Does anyone know if there's the same part lurking on a t-4xb? I have a carcass. Since there's no bfo, I'm rather doubting it but who knows?
>>>
>>> Steve Wedge, W1ES/4
>>>
>>>
>>> Sent from my iPhone; please excuse any typographical malaprops.
>>>
>>>> On Apr 26, 2014, at 1:19 PM, <prosolar@...> wrote:
>>>>
>>>> Well guys, the subject line says it all.
>>>>

>>>>
>>>> in case you haven't been following the thread about my broken R4A, I'll cut to the chase.
>>>>
>>>>
>>>> The BFO is not working. I replaced the capacitors, and even the single transistor. No joy.
>>>>
>>>>
>>>> That leave only one part left in the circuit. The T3 transformer. It looks like an IF can.
>>>>
>>>>
>>>> So, anyone have a R4A part pig? Or if fate favors the foolish, a new one?
>>>>
>>>>
>>>> If not, then the R4A i have will be a great AM shortwave receiver. With no BFO, no SSB or CW.
>>>>
>>>>
>>>> Scrape around the junk box and see if you have one laying in the bottom.
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>>>>
>>>> Thanks
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>>>>
>>>> Mike, wb8vge
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20419. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 01:58:00 UTC
From: Garey Barrell
Topic: 20393 Message: 20419

Yes, should be 3.3 ohms.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Garey R36 on board 6?
>
>
>

20420. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 02:04:14 UTC
From: Garey Barrell
Topic: 20393 Message: 20420

Dave -

OK, should be 3.3 ohms if the PLATE meter is a 0-500 mA scale.

A possible problem with RFC6 is a shorted turn, which kills the inductance of the RFC. A shorted turn can occur when a coil is overheated, and where one turn of wire crosses another
turn and the insulation burns or melts through, shorting one or more turns. This will not show
on an ohmmeter. I only suspect it because that string of components was all subjected to the
high current that caused RFC5 to burn open.

If you don't have one to sub, I'd leave that for a bit and try some of the other possibilities
that may be causing your intermittent.

Please leave the messages intact when replying. I have several projects going at the moment and
it helps me keep them straight if I can look back over what we've discussed.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> 1) R36 is at 4ohms not the 2.7ohm so that will be replaced.
>
> 2) RCF6 is showing around 1.4ohms that's the same residents as RFC2 so I think that's OK no?
>
> Dave
>
>

20421. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 02:31:00 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20421

I have the 0-500 scale. So that's 3.3 ohms 1w at 5% and not the 2.7ohm 1w at 5% resistor?

I see what your saying now a bought the coil. No I don't have a replacement.

I'm looking for that file in the CD for version changes and don't see it off hand

And now for the big question lol ....I think we are fairly confident that the problem stems from a short tube so I'm wondering what you think of the 6146 conversion?

Thanks Garey!!!!
Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20422. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 13:56:01 UTC
From: Garey Barrell
Topic: 20393 Message: 20422

Dave -

Yes, the 500 fs meter should have the 3.3 ohm R36.

I'm referring to the schematic in the MISC directory, 'T-4X 13749" file. R36 is 3.3 ohms in that version. It really depends on the meter. The 400 mA fs meter needs the 2.7 ohm.

I believe the problem 'WAS' a shorted tube that has been replaced AFTER the damage was done. No
suspicion that either of the 'current' tubes is shorted.

Positively not! That's one of those 'internet expert' modifications. There were reasons, (besides cost,) that the 6JB6 was chosen over the 6146. Yes, using the 6JB6s reduced the transmitter cost by <1%, and yes the 6146 is a 'transmitting' tube, but ....

1. The 6146s can't provide the power output of the 6JB6s without increasing the Plate voltage.

2. Increasing the Plate voltage increases costs because higher voltage components have to be
used in several places.

The conversion is a complete rework of the PA cage, the 6146 is 'wider' in an already tight arrangement. The parasitic suppressor, bypass, RFC, input and output networks are for the 6JB6. Aside from the obvious problems this causes, it also makes an entirely new PA from a spurious standpoint. So far as I know, no one has ever done a thorough investigation of parasitic and stability characteristics of the 6146 version.

Finally, the tube cost differential is no longer an issue as they cost about the same... The
6146 'may' be a little more tolerant of overload, because it is incapable of drawing the current
that a 6JB6 is (another one of the reasons for the tube choice). The 6JB6s will last just as
long as the 6146, IF you respect it's capabilities and keep it in resonance. It's kinda like
comparing a GEO and a Corvette. If you aren't careful with the accelerator the Corvette will
put you in the ditch a LOT faster... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> I have the 0-500 scale. So that's 3.3 ohms 1w at 5% and not the 2.7ohm 1w at 5% resistor?
>
> I see what your saying now a bought the coil. No I don't have a replacement.
>
> I'm looking for that file in the CD for version changes and don't see it off hand
>
> And now for the big question lol ....I think we are fairly confident that the problem stems from a short tube so I'm wondering what you think of the 6146 conversion?
>
> Thanks Garey!!!!
> Dave
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20423. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 14:09:15 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 20423

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

20424. WTB: Drake T-4XB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 14:20:22 UTC
From: Bill Cotter
Topic: 206 Message: 20424

Greetings,

I am looking to purchase a Drake T-4XB transmitter to pair up with my R-4B receiver. I prefer one that is in good to excellent condition. Please send me a description, pictures and price of what you have off-line at n4lg@...

73 es tnx Bill N4LG

20425. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 14:26:12 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20425

OK I will have to order the 3.3 I don't have any on hand. My radio currently has the 2.7 installed hmmmmm...but its measuring around 4ohms.

Found the file :)

" If " RFC6 is good and replacing R36 we should get full power out at this point?

I'm not sure I agree with you with the tubes I think one is bad but we will see lol :)

Thanks for the info on the conversion that I'm NOT doing :)

Thanks Garey
Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20426. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 15:01:57 UTC
From: Garey Barrell
Topic: 20393 Message: 20426

Dave -

You can plug one PA tube in at a time to check them. Plug them into the same socket and connect
the Plate cap. Measure the 15 ohm resistor for that socket with your DMM. IF it is exactly 15
ohms, (not likely,) you should see 0.525 VDC across it, which is 35 mA. If this occurs with ~
-60 VDC on the Grid, the tube is at least serviceable.

If the resistor is actually 16.2 ohms, you should see 0.035 X 16.2 = 0.567 VDC.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> OK I will have to order the 3.3 I don't have any on hand. My radio currently has the 2.7 installed hmmmmm...but its measuring around 4ohms.
>
> Found the file :)
>
> " If " RFC6 is good and replacing R36 we should get full power out at this point?
>
> I'm not sure I agree with you with the tubes I think one is bad but we will see lol :)
>
> Thanks for the info on the conversion that I'm NOT doing :)
>
> Thanks Garey
> Dave
>
>

20427. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 15:16:17 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20427

Idle or tx?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20428. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 15:21:34 UTC
From: Garey Barrell
Topic: 20393 Message: 20428

Voltage measured in IDLE condition, keyed, RF GAIN at minimum.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Idle or tx?
>
>

20429. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 15:52:28 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20429

OK ... should I have both tubes in the radio and then just swap them measuring the DC voltage on the same resistor or always leave one tube out?

Also I found 6 20ohm resistor to make up the 3.3 and installed it for testing and noticed no change in rf out or readings on the meeter :(

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20430. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 16:24:00 UTC
From: Garey Barrell
Topic: 20393 Message: 20430

Only one tube at a time. Other socket empty.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> OK ... should I have both tubes in the radio and then just swap them measuring the DC voltage on the same resistor or always leave one tube out?
>
> Also I found 6 20ohm resistor to make up the 3.3 and installed it for testing and noticed no change in rf out or readings on the meeter :(
>
> Dave
>
> Sent from Yahoo Mail on Android
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20431. T11 for Mike's R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 16:23:49 UTC
From: Don Cunningham
Topic: 20431 Message: 20431

Garey,
I never saw an answer to my "dumb question", so either it got lost, or I just never got your reply. Does an R4 carcass with a serial number of 5224 HAVE to be a late R4A?? In other words, didn't Drake just use consecutive numbers on all the R4(any) receivers?? I bought the carcass I have as just that, a carcass, and don't know which (any) it is. I wanted the bandswitch so I could remove the missing wafer I needed for my mint R4 receiver, but after getting it and seeing how it looks, I may just "graft" the whole bandswitch in there and save myself some headaches. So, I could easily help Mike if he still needs the transformer and the one from this carcass will work.
Thanks,
Don, WB5HAK

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20432. Re: [DrakeRadio] T11 for Mike's R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 16:32:39 UTC
From: Garey Barrell
Topic: 20431 Message: 20432

Don -

I saw your message, and forgot to reply. :-]

Yes, if it is an R-4(any) chassis with s/n 5224, it IS a Late R-4A. Has 11 tubes, and solid state AVC, BFO and Low Level Audio stages.

I haven't heard back from Mike if he has fully checked his transformer out, there are several
'repairable' failure modes.

We should hear from him again when he finishes his evaluation.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Don Cunningham wrote:
> Garey,
> I never saw an answer to my "dumb question", so either it got lost, or I
> just never got your reply. Does an R4 carcass with a serial number of
> 5224 HAVE to be a late R4A?? In other words, didn't Drake just use
> consecutive numbers on all the R4(any) receivers?? I bought the carcass
> I have as just that, a carcass, and don't know which (any) it is. I
> wanted the bandswitch so I could remove the missing wafer I needed for
> my mint R4 receiver, but after getting it and seeing how it looks, I may
> just "graft" the whole bandswitch in there and save myself some
> headaches. So, I could easily help Mike if he still needs the
> transformer and the one from this carcass will work.
> Thanks,
> Don, WB5HAK
>
>

20433. Re: [DrakeRadio] T11 for Mike's R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 16:35:09 UTC
From: Don Cunningham
Topic: 20431 Message: 20433

Okay, thanks. Now I am sure about the serial number anyway. If he
checks back in, I can offer to help.
73,
Don
On 4/27/2014 11:32 AM, Garey Barrell wrote:
>
> Don -
>
> I saw your message, and forgot to reply. :-]
>
> Yes, if it is an R-4(any) chassis with s/n 5224, it IS a Late R-4A.
> Has 11 tubes, and solid
> state AVC, BFO and Low Level Audio stages.
>
> I haven't heard back from Mike if he has fully checked his transformer
> out, there are several
> 'repairable' failure modes.
>
> We should hear from him again when he finishes his evaluation.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Don Cunningham wrote:
> > Garey,
> > I never saw an answer to my "dumb question", so either it got lost, or I
> > just never got your reply. Does an R4 carcass with a serial number of
> > 5224 HAVE to be a late R4A?? In other words, didn't Drake just use
> > consecutive numbers on all the R4(any) receivers?? I bought the carcass
> > I have as just that, a carcass, and don't know which (any) it is. I
> > wanted the bandswitch so I could remove the missing wafer I needed for
> > my mint R4 receiver, but after getting it and seeing how it looks, I may
> > just "graft" the whole bandswitch in there and save myself some
> > headaches. So, I could easily help Mike if he still needs the
> > transformer and the one from this carcass will work.
> > Thanks,
> > Don, WB5HAK
> >
> >
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>

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20434. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 16:50:47 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20434

Grid voltage is -50

The two tubes show 0vdc across the 15ohm resistor. One side of the resistors has the 148vdc

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20435. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 17:05:07 UTC
From: Garey Barrell
Topic: 20393 Message: 20435

The transmitter should be in TUNE, and the voltage on the 15 ohm resistor should be about 1 volt
on the tube side and about a half volt on the other side. Measure ~ 0.525V across the 15 ohm
resistor.

Start with the BIAS (Grid) voltage at about -60 VDC.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Grid voltage is -50
>
> The two tubes show 0vdc across the 15ohm resistor. One side of the resistors has the 148vdc
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20436. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 17:36:46 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20436

This is what I just did ....

1) with no tubes installed I adjusted the power supply bias until I measured -60vdc

2) installed the two tubes and measures -59.5vdc

3) ran the test with one tube at a time measuring across the 15ohm resistor and got 0vdc on each tube in tune mode

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20437. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 17:37:34 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20437

This is what I just did ....

1) with no tubes installed I adjusted the power supply bias until I measured -60vdc

2) installed the two tubes and measures -59.5vdc

3) ran the test with one tube at a time measuring across the 15ohm resistor and got 0vdc on each tube.

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20438. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 17:52:05 UTC
From: Garey Barrell
Topic: 20393 Message: 20438

OK, we're doing something wrong.....

Do you have ~650-700 VDC on the Plates of the PA?

Do you have ~260 VDC on the Screens of the PA?

You say you have -60 VDC on the Grids.

You should measure ~ 75-100 VDC on the Cathodes of the PA in SSB. This voltage should drop to
about a volt or so when you switch to TUNE mode with the RF GAIN full CCW.

This is all completely separate from anything else in the transmitter. If at least one of the
tubes is good, the Cathode voltage will go to from ~ 75-100 VDC to ~ 1 VDC. The other end of
the 15 ohm resistor should be about half a volt.

Simple circuit.... Plate of PA tube to Cathode of PA tube, to 15 ohm resistor, to RFC2, to R36,
to ground via relay contacts.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> This is what I just did ....
>
> 1) with no tubes installed I adjusted the power supply bias until I measured -60vdc
>
> 2) installed the two tubes and measures -59.5vdc
>
> 3) ran the test with one tube at a time measuring across the 15ohm resistor and got 0vdc on each tube.
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20439. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 17:57:16 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20439

OK Garey I will check later tonight.... the wife is yelling at me lol

Thanks Garey!!!
Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20440. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 18:05:05 UTC
From: Richard Knoppow
Topic: 20393 Message: 20440

----- Original Message -----
From: <n1ohn@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 27, 2014 10:37 AM
Subject: Re: [DrakeRadio] T-4XB low RF out?

> This is what I just did ....
>
> 1) with no tubes installed I adjusted the power supply
> bias until I measured -60vdc
>
> 2) installed the two tubes and measures -59.5vdc
>
> 3) ran the test with one tube at a time measuring across
> the 15ohm resistor and got 0vdc on each tube.
>
Let me jump in here for a moment. Make sure you are measuring what you think you are. The bias setting is fine. When the function switch is in "Separate" the line to the common of the meter is at ground potential, its grounded at the switch. The high voltage you report at both ends of the cathode resistors suggest that its not the tubes but something else that is keeping the cathode return from ground. From the circuit diagram it could be the choke in the cathode circuit or the switches. The choke can be measured with an ohm meter. I don't know the proper resistance but what you are looking for is an open. Also, its possible there is something amiss with the function switch. I suggest cleaning it very thoroughly even if you have before. See if that makes any difference. You can get some idea of what is going on by having a large schematic printed and tracing out the wiring with colored pencils. The schematic is hard to follow just by eye. You can check the switch with an ohm meter. From the common end of the meter you should be getting a short to ground when the switch is in separate and maybe some other combinations. If its open there will be no cathode return and the tube will not operate.
Poking around with the ohm meter may find other problems such as open solder joints. I think your tubes are probably fine.

--
Richard Knoppow
Los Angeles

WB6KBL
dickburk@...

20441. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 18:33:44 UTC
From: Garey Barrell
Topic: 20393 Message: 20441

Richard -

He's apparently using a phone for messaging and so we lose all previous. A real pain when you've got three or four of these going at a time!! :-)

At one point a while back I had him ground the bottom end of the meter shunt, R36 and he said
the maximum he could get was about 50 mA of idle. He was getting continuity as displayed by the
reduce, intermittent output power. I'm thinking one tube may be bad or weak, which is why I'm
trying to measure them individually. Regardless of the switch or relay, the Cathodes of the PA
will float up to about -80 VDC or so. It's been so long since we started I'm losing track.! :-) He was getting very low output power, jumping 10-20 Watts at random. We started with a 'new' e-Bay special. One parasitic suppressor was fried, along with RFC5 and R36 was at about 4
ohms. My speculation was that a tube probably shorted, and the PO put in 'another' tube to sell
it. The 'jumping' power lead me to suspect RFC6 'may' have a shorted turn, and that RFC5 opened
up in time to keep 6 from frying.

So, back to the future, start with the PA and work forward. The last test was to try and check
the PA tubes, one at a time, to make sure both were sharing the BIAS current. I have seen one
tube go 'bad' to the extent that it will not even conduct IDLE current, so the op is unwittingly
asking one tube to conduct 70 mA at idle.

By the way, the meter common is NOT grounded at the switch in SEPARATE. It's going through a
couple of sets of contacts, but actually just goes through and up to the XMIT CATH line and all
the way around back to the MUTE contact on the relay to reach ground.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> ----- Original Message -----
> From: <n1ohn@...>

> To: <DrakeRadio@yahoogroups.com>
> Sent: Sunday, April 27, 2014 10:37 AM
> Subject: Re: [DrakeRadio] T-4XB low RF out?
>
>
>> This is what I just did ....
>>
>> 1) with no tubes installed I adjusted the power supply
>> bias until I measured -60vdc
>>
>> 2) installed the two tubes and measures -59.5vdc
>>
>> 3) ran the test with one tube at a time measuring across
>> the 15ohm resistor and got 0vdc on each tube.
>>
> Let me jump in here for a moment. Make sure you are
> measuring what you think you are. The bias setting is fine.
> When the function switch is in "Separate" the line to the
> common of the meter is at ground potential, its grounded at
> the switch. The high voltage you report at both ends of the
> cathode resistors suggest that its not the tubes but
> something else that is keeping the cathode return from
> ground. From the circuit diagram it could be the choke in
> the cathode circuit or the switches. The choke can be
> measured with an ohm meter. I don't know the proper
> resistance but what you are looking for is an open. Also,
> its possible there is something amiss with the function
> switch. I suggest cleaning it very thoroughly even if you
> have before. See if that makes any difference. You can get
> some idea of what is going on by having a large schematic
> printed and tracing out the wiring with colored pencils.
> The schematic is hard to follow just by eye. You can check
> the switch with an ohm meter. From the common end of the
> meter you should be getting a short to ground when the
> switch is in separate and maybe some other combinations. If
> its open there will be no cathode return and the tube will
> not operate.
> Poking around with the ohm meter may find other problems
> such as open solder joints. I think your tubes are probably
> fine.
>
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>
>

> ------------------------------------
>
> Yahoo Groups Links
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20442. Re: File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 18:41:35 UTC
From: Brian and Beth Miller
Topic: 206 Message: 20442

I am using Microsoft Outlook to read the DrakeRadio group.

Is there an archive? If so, how do I access it? Can it be easily searched?

How can I see the pictures that some members have posted?

Thank you,

Brian Ni7p

[Non-text portions of this message have been removed]

20443. Re: [DrakeRadio] Re: File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 18:44:37 UTC
From: Dan Galligan
Topic: 206 Message: 20443

Brian,
Try this link, that is typically at the bottom of all emails, forwarded to the group.
http://groups.yahoo.com/group/DrakeRadio/

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

> On Apr 27, 2014, at 13:41, Brian and Beth Miller <bmiller297@...> wrote:
>
> I am using Microsoft Outlook to read the DrakeRadio group.
>
>
>
> Is there an archive? If so, how do I access it? Can it be easily searched?
>
>
>
> How can I see the pictures that some members have posted?
>
>
>
> Thank you,
>
>
>
> Brian Ni7p
>
>
>
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>
> [Non-text portions of this message have been removed]
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> ------------------------------------
>
> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20444. FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 19:19:34 UTC
From: Whitebear1122
Topic: 206 Message: 20444

Is anyone on here actively using an FS-4 synthesizer with their 4C twins? Just curious to hear how well it works and if there are issues. I do understand that the FS-4 should be removed when using internal crystal bands because of loading. I want to put my new 4C twins on 17 meters and figured the FS-4 should work fine there.

73, Scott WA9WFA

20445. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 18:56:20 UTC
From: Richard Knoppow
Topic: 20393 Message: 20445

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 27, 2014 11:33 AM
Subject: Re: [DrakeRadio] T-4XB low RF out?

This is starting to ring a bell now. I've followed this thread partly at work so see it intermittantly. My thought that the cathode went to ground through the function switch was from tracing it by eye on the computer screen. This is the reason I suggested getting a schematic printed out large and tracing with colored pencils. I find my eye tends to jump plus switches are at best difficult to trace.
I once shorted something, not sure what, while measuring HV. It turned out I had a VOM set on ohms. It blew up the VOM but also blew the filament fuse and the tubes opened up. Very odd beccause the filaments still lit so I suppose some internal lead got fried. In any case the tubes were completely open. That incident made me very careful afteward. I should not admit anything like this in public since I've spent my life working on high end electronics. Once in a while some problem comes up in a mailing list thats like a web bar of soap. You keep thinking you have a grip on it and there it is across the room. One advantage of Drake stuff is that you know it did work once, not like some stuff that was never more than marginal.
Did I mention finding a bad tube in my R4B? Symptom was intermittant hum on CW. I thought it might be modulation hum from a power line at first. Turned out to be a bad 12AX7 in the noise blanker. When the blanker is on the hum is there when its off no hum. Also goes away when the tube is replaced. I was fooled at first because there was no hum when the calibrator is turned on. That's because it evidently turns the blanker off. Anyway, I am off to check storage for another tube. I borrowed one to check if it was the tube. I have never been quite satisfied with the way the blanker works so its possible this tube has been going bad for some time.
Enough rambling.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20446. Re: [DrakeRadio] Re: File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 19:20:44 UTC
From: Richard Knoppow
Topic: 206 Message: 20446

----- Original Message -----
From: "Brian and Beth Miller" <bmiller297@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 27, 2014 11:41 AM
Subject: [DrakeRadio] Re: File - Bi-Weekly Statement

>I am using Microsoft Outlook to read the DrakeRadio group.
>
>
>
> Is there an archive? If so, how do I access it? Can it be
> easily searched?
>
>
>
> How can I see the pictures that some members have posted?
>
>
>
> Thank you,
>
>
>
> Brian Ni7p
>
The web site is right at the bottom of each post:

http://groups.yahoo.com/group/DrakeRadio/

If you did not join the group via the web site you may
have to register there to access the files and archive.
Registering is simple, the instructions are at the site.
The web site has an archive of messages, a files section, a
photo section (one can not send attachments via the list).
The other information you want about the number of members,
etc, is all there. I don't know if the archive has a
general search but its divided up by date and is probably
searchable within a date by the text search in your machine.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20447. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 19:25:40 UTC
From: Evan Rolek
Topic: 206 Message: 20447

Scott,

I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.

73,

Evan, K9SQG

-----Original Message-----
From: Whitebear1122 <whitebear1122@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, Apr 27, 2014 3:19 pm
Subject: [DrakeRadio] FS-4 Question

Is anyone on here actively using an FS-4 synthesizer with their 4C twins? Just curious to hear how well it works and if there are issues. I do understand that the FS-4 should be removed when using internal crystal bands because of loading. I want to put my new 4C twins on 17 meters and figured the FS-4 should work fine there.

73, Scott WA9WFA

[Non-text portions of this message have been removed]

20448. TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 19:43:12 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20448

S meter only moves to S2 on power up and does not respond to any signals.

RFgain CCW does not cause any meter movement.

Calibrator does not cause any movement.

Replaced V11...........R187 appears good.................

??

Thanks

N1CQ

[Non-text portions of this message have been removed]

20449. Re: [DrakeRadio] TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 20:00:04 UTC
From: Garey Barrell
Topic: 20448 Message: 20449

Any audio output? Hear any signals?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> S meter only moves to S2 on power up and does not respond to any signals.
>
> RFgain CCW does not cause any meter movement.
>
> Calibrator does not cause any movement.
>
> Replaced V11...........R187 appears good.................
>
>

20450. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 20:31:28 UTC
From: Steve Toth
Topic: 206 Message: 20450

29.1 xtal, band switch on 15 mtr, preselector on 20 mtr works fb on 17 also with the twins in transceiver mode.

-- Steve

"Technically.....the glass is ALWAYS full."

On Sun, 4/27/14, Whitebear1122 <whitebear1122@...> wrote:

Subject: [DrakeRadio] FS-4 Question
To: DrakeRadio@yahoogroups.com
Date: Sunday, April 27, 2014, 12:19 PM

Is anyone on here
actively using an FS-4 synthesizer with their 4C twins?
Just curious to hear how well it works and if there are
issues. I do understand that the FS-4 should be removed
when using internal crystal bands because of loading. I
want to put my new 4C twins on 17 meters and figured the
FS-4 should work fine there.

73, Scott WA9WFA

Yahoo Groups Links

Traditional

(Yahoo! ID required)

DrakeRadio-fullfeatured@yahoogroups.com

20451. Re: [DrakeRadio] TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 21:21:02 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20451

Yes

Audio is fine.

S meter will not zero. Goes to S2 on warm up and stays there. No deflection with signals.

Rcvr sensitivity is good.

When I xmit, meter does deflect up very slightly, but not like a normal TR4-C should.

Checked R187 with ohmeter..........seems OK.........

Substituted a known good 6BZ6 in V11..........still the same issue.

??

[Non-text portions of this message have been removed]

20452. Re: [DrakeRadio] archive/pictures

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 22:03:01 UTC
From: Chgypsy@...
Topic: 20452 Message: 20452

bmiller297@... writes:

Is there an archive? YES If so, how do I access it? Can it be
easily searched? FAIRLY
How can I see the pictures that some members have posted?
Brian, On our portion of Yahoo groups, where you signed up. Carl wd8nhk

[Non-text portions of this message have been removed]

20453. 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 23:04:03 UTC
From: EDEN MCCOLLOUGH
Topic: 20453 Message: 20453

Hello to the group.

I have recently acquired a nice B line set of twins....T-4XB, and the R-4B. I have two different mics to use on the set including an Electrovoice 638 Hi Z, and a Shure 444D Hi/Low Z. While trying them both out on 160 meters with my friends who know my voice, all said that both mics really sounded pinched up. Much more of a DX sounding audio than rag chew. Anyone know if that is common with the B line and these particular mics? From all the reviews and articles I've come accross, all seem to think both these mics have nice, smooth and rich audio. I am not getting that. Could there be a problem with the radio? Perhaps this is just how they're supposed to sound, but my friends seem to think they both sound way too narrow. Any ideas would be welcome. Thanks.

73,
Butch...K3AFR

[Non-text portions of this message have been removed]

20454. Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 23:11:37 UTC
From: Doug Coffman
Topic: 20453 Message: 20454

Have you tried both upper and lower SSB on TX? If the mics are In good order the alignment or filter may be at issue.

Sent from my iPhone

> On Apr 27, 2014, at 19:04, "EDEN MCCOLLOUGH" <k3afr@...> wrote:
>
> Hello to the group.
>
> I have recently acquired a nice B line set of twins....T-4XB, and the R-4B. I have two different mics to use on the set including an Electrovoice 638 Hi Z, and a Shure 444D Hi/Low Z. While trying them both out on 160 meters with my friends who know my voice, all said that both mics really sounded pinched up. Much more of a DX sounding audio than rag chew. Anyone know if that is common with the B line and these particular mics? From all the reviews and articles I've come accross, all seem to think both these mics have nice, smooth and rich audio. I am not getting that. Could there be a problem with the radio? Perhaps this is just how they're supposed to sound, but my friends seem to think they both sound way too narrow. Any ideas would be welcome. Thanks.
>
> 73,
> Butch...K3AFR
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20455. Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 23:23:01 UTC
From: Steve Wedge
Topic: 20453 Message: 20455

As was said, check on both sidebands. My "hunch" is that the carrier balance is likely off.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Doug Coffman
Sent: Sunday, April 27, 2014 7:11 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Have you tried both upper and lower SSB on TX? If the mics are In good order the alignment or filter may be at issue.

Sent from my iPhone

> On Apr 27, 2014, at 19:04, "EDEN MCCOLLOUGH" <k3afr@...> wrote:
>
> Hello to the group.
>
> I have recently acquired a nice B line set of twins....T-4XB, and the R-4B. I have two different mics to use on the set including an Electrovoice 638 Hi Z, and a Shure 444D Hi/Low Z. While trying them both out on 160 meters with my friends who know my voice, all said that both mics really sounded pinched up. Much more of a DX sounding audio than rag chew. Anyone know if that is common with the B line and these particular mics? From all the reviews and articles I've come accross, all seem to think both these mics have nice, smooth and rich audio. I am not getting that. Could there be a problem with the radio? Perhaps this is just how they're supposed to sound, but my friends seem to think they both sound way too narrow. Any ideas would be welcome. Thanks.
>
> 73,
> Butch...K3AFR
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20456. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-27 23:40:20 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20456

Hello all :) you two bring some very good points! Thank you. Right now I'm just a puppet and Garey is my master lol lol let's see how this all plays out.....Garey I'm going home shortly and check the voltages at the sockets. I know I have the high voltages at the feed threw section.

Thanks all!!!! What a great group!!!!

Dave :)

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20457. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 00:28:37 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20457

OK with tubes out measuring at the sockets I have ....
+650vdc
at P1 and P2 clips +697vdc
+250vdc
-59 bias

Dave
Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20458. Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 00:34:50 UTC
From: Richard Knoppow
Topic: 20453 Message: 20458

----- Original Message -----
From: "Doug Coffman" <dj_coffman@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 27, 2014 4:11 PM
Subject: Re: [DrakeRadio] 'Pinched' sounding TX audio.....

> Have you tried both upper and lower SSB on TX? If the
> mics are In good order the alignment or filter may be at
> issue.
>
> Sent from my iPhone
>
>> On Apr 27, 2014, at 19:04, "EDEN MCCOLLOUGH"
>> <k3afr@...> wrote:
>>
>> Hello to the group.
>>
>> I have recently acquired a nice B line set of
>> twins....T-4XB, and the R-4B. I have two different mics
>> to use on the set including an Electrovoice 638 Hi Z, and
>> a Shure 444D Hi/Low Z. While trying them both out on 160
>> meters with my friends who know my voice, all said that
>> both mics really sounded pinched up. Much more of a DX
>> sounding audio than rag chew. Anyone know if that is
>> common with the B line and these particular mics? From
>> all the reviews and articles I've come accross, all seem
>> to think both these mics have nice, smooth and rich
>> audio. I am not getting that. Could there be a problem
>> with the radio? Perhaps this is just how they're supposed
>> to sound, but my friends seem to think they both sound
>> way too narrow. Any ideas would be welcome. Thanks.
>>
>> 73,
>> Butch...K3AFR

The data sheets for both mics are on the web. The EV
mic does not show a response curve but the specs are that
its good from 70hz to 10Khz with no note about rising
response. However, it is made for paging, PA, and
communications use so may emphasize the intelligence range
of speech. The 444 has a strongly rising response with a
high peak at about 3000hz. This is very similar to the
Astatic D-104 so it may sound "tinny". Its important that
the carrier oscillator be centered correctly or one sideband
will be shrill and the other bassy. There is a procedure in

the handbook. If you have to adjust it you will probably have to adjust the carrier null, also not a difficult adjustment.
Like many other filter type SSB transmitters the T4XB has somewhat limited frequency response centered in the range that carries the intelligence of speech. However, it should not be pinched or tinny sounding, in fact, with a decent microphone it has very good audio.
I have several microphones, after some testing I get the best reports from an Electro-Voice 664. I've also tried with a couple of very flat studio type mics, the reports are that the 664 is better.
If you have a receiver with fairly wide bandwidth try listening to your own signal over a pair of good quality headphones. A scrap of wire for the antenna will do. But, you can do well with the R4B by taking it off mute, there is enough leakage to produce a good strong signal. Use the widest IF bandwidth to judge quality since the SSB bandwidth is narrow enough to have its own limitations.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20459. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 01:10:46 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20459

Update.... after checking the voltages below I inserted the tubes and warmed up the radio and now I'm getting .1vdc across the 15ohm resistor in ssb tune mode. Maybe I did not let the radio warm up before I don't know. In idle I have 147vdc at the junction of the coil and the 15ohm resistor and in tune now shows .1vdc across the resistor.

OK with tubes out measuring at the sockets I have ....
+650vdc
at P1 and P2 clips +697vdc
+250vdc
-59 bias
Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20460. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 01:24:39 UTC
From: <n1ohn@...>
Topic: 20393 Message: 20460

Update #2 ....

Maybe I'm not doing it wrong lol ..... ok with the two tubes installed I get .1vdc across the 15ohm resistors. With one tube in and the other tube out and swapping the tubes after warm-up I still get 0vdc across the 15ohm resistor.

Dave

[Non-text portions of this message have been removed]

20461. Re: [DrakeRadio] TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:01:31 UTC
From: Garey Barrell
Topic: 20448 Message: 20461

Try swapping V4 and V13.

Does the AVC seem to be working?? No distortion on strong signals....?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> Yes
>
> Audio is fine.
>
> S meter will not zero. Goes to S2 on warm up and stays there. No deflection with signals.
>
> Rcvr sensitivity is good.
>
> When I xmit, meter does deflect up very slightly, but not like a normal TR4-C should.
>
> Checked R187 with ohmeter...........seems OK..........
>
> Substituted a known good 6BZ6 in V11...........still the same issue.
>
>

20462. Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:07:11 UTC
From: Garey Barrell
Topic: 20453 Message: 20462

Carrier _Frequency_..... Should be very close to 9.0000 MHz. C2

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> As was said, check on both sidebands. My "hunch" is that the carrier balance is likely off.
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Doug Coffman
> Sent: Sunday, April 27, 2014 7:11 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] 'Pinched' sounding TX audio.....
>
>
>
> Have you tried both upper and lower SSB on TX? If the mics are In good order the alignment or filter may be at issue.
>
> Sent from my iPhone
>
>> On Apr 27, 2014, at 19:04, "EDEN MCCOLLOUGH" <k3afr@...> wrote:
>>
>> Hello to the group.
>>
>> I have recently acquired a nice B line set of twins....T-4XB, and the R-4B. I have two different mics to use on the set including an Electrovoice 638 Hi Z, and a Shure 444D Hi/Low Z. While trying them both out on 160 meters with my friends who know my voice, all said that both mics really sounded pinched up. Much more of a DX sounding audio than rag chew. Anyone know if that is common with the B line and these particular mics? From all the reviews and articles I've come accross, all seem to think both these mics have nice, smooth and rich audio. I am not getting that. Could there be a problem with the radio? Perhaps this is just how they're supposed to sound, but my friends seem to think they both sound

way too narrow. Any ideas would be welcome. Thanks.
>>
>> 73,
>> Butch...K3AFR
>>
>>

20463. Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:11:12 UTC
From: Steve Wedge
Topic: 20453 Message: 20463

That's what I meant. Long day.

Though all of it is usually set up in the same sub-procedure, IIRC...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Sunday, April 27, 2014 10:07 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] 'Pinched' sounding TX audio.....

Carrier _Frequency_..... Should be very close to 9.0000 MHz. C2

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> As was said, check on both sidebands. My "hunch" is that the carrier balance is likely off.
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Doug Coffman
> Sent: Sunday, April 27, 2014 7:11 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] 'Pinched' sounding TX audio.....
>
>
>
> Have you tried both upper and lower SSB on TX? If the mics are In good order the alignment or filter may be at issue.
>

> Sent from my iPhone
>
>> On Apr 27, 2014, at 19:04, "EDEN MCCOLLOUGH" <k3afr@zoominternet.net> wrote:
>>
>> Hello to the group.
>>
>> I have recently acquired a nice B line set of twins....T-4XB, and the R-4B. I have two different mics to use on the set including an Electrovoice 638 Hi Z, and a Shure 444D Hi/Low Z. While trying them both out on 160 meters with my friends who know my voice, all said that both mics really sounded pinched up. Much more of a DX sounding audio than rag chew. Anyone know if that is common with the B line and these particular mics? From all the reviews and articles I've come accross, all seem to think both these mics have nice, smooth and rich audio. I am not getting that. Could there be a problem with the radio? Perhaps this is just how they're supposed to sound, but my friends seem to think they both sound way too narrow. Any ideas would be welcome. Thanks.
>>
>> 73,
>> Butch...K3AFR
>>
>>

[Non-text portions of this message have been removed]

20464. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:13:44 UTC
From: Garey Barrell
Topic: 20393 Message: 20464

You should be able to adjust the IDLE current (0.1V across 15 ohms) to see 0.525 VDC, using the
BIAS control on the AC-4.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Update.... after checking the voltages below I inserted the tubes and warmed up the radio and now I'm getting .1vdc across the 15ohm resistor in ssb tune mode. Maybe I did not let the radio warm up before I don't know. In idle I have 147vdc at the junction of the coil and the 15ohm resistor and in tune now shows .1vdc across the resistor.
>
> OK with tubes out measuring at the sockets I have ....
> +650vdc
> at P1 and P2 clips +697vdc
> +250vdc
> -59 bias
>

20465. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:15:04 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20465

Doing this with one tube installed in tune mode?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20466. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:17:08 UTC
From: Garey Barrell
Topic: 20393 Message: 20466

ONE PA tube at a time. TUNE mode, RF GAIN at full CCW. You should be able to adjust the BIAS
in the AC-4 for 0.525 VDC across the 15 ohm resistor in the Cathode circuit of the socket with
the tube in it.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

n1ohn@... wrote:
> Update #2 ....
>
>
> Maybe I'm not doing it wrong lol ..... ok with the two tubes installed I get .1vdc across the 15ohm resistors. With one tube in and the other tube out and swapping the tubes after warm-up I still get 0vdc across the 15ohm resistor.
>
>
> Dave
>
>
>

20467. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:18:13 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20467

OK checking now

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20468. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:38:50 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20468

Hi Garey

I'll try this.............

That's a good question.............seems AVC may not be working on receive.

[Non-text portions of this message have been removed]

20469. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 02:40:57 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20469

No voltage and now I'm noticing that in this configuration one tube in that the tube is nor lighting up

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20470. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 04:21:34 UTC
From: Richard Knoppow
Topic: 20393 Message: 20470

----- Original Message -----
From: <n1ohn@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, April 27, 2014 7:40 PM
Subject: Re: [DrakeRadio] T-4XB low RF out?

> No voltage and now I'm noticing that in this configuration
> one tube in that the tube is nor lighting up
>
Hanging on just a minute here please, the filaments are in SERIES so both have to be in to light. I looked at both versions of the schematic in Garey's disk, both are the same. Since there has been some discussion of the TR-4, which has parallel filaments, perhaps there was some confusion. In any case, you can not check the cathode current with a single tube in place. To check current first measure the cathode resistors carefully. They really should be replaced with modern metal oxide film resistors. This are available in 5% types and will not drift with time or heat. Once you know the resistance you can calculate the current from the voltage drop across each resistor. The circuit is designed for a quiescent (no signal) current of 35 ma per tube or 70 ma total. You are measuring one tube at a time. The voltage across the 15 ohm resistor should be 0.525 volts. The two tubes should be reasonably close. I am not sure of the tollerance on match of the tubes but probably +/- 10% is acceptable. If the tubes are much different one or both should be replaced. The grid bias should be set to obtain the correct voltage drop across the resistors. This is important because the circuit is designed to have minimum distortion at this value of bias.
Panel meter: the panel meter is an indicator not a precision instrument. It is adjusted to read correctly by choice of the surrounding resistors. These are R-36, the meter shunt, and R-38, a series resistor chosen to make the meter read correctly. The value of R-36 depends on the version of the meter used in the set and is either 2.7 ohms or 3.3 ohms. The other resistor is adjusted after obtaining a reference by setting the total cathode current by means of measuring it at the cathode resistors and adjusting the bias to obtain the correct value. Set the cathode current for 35ma per tube. The total will then be 70 ma, the correct resting value. The meter trim resistor is then adjusted to get the meter to read exactly on the 70 ma mark. This is the most important setting meter is used for, other readings are

relative but the meter _must_ be accurate at this one value.
The resistors used for the shunt and trimmer should be
high quality film resistors to prevent drift. The exact
value of the trimmer is not important, only that it makes
the meter read correctly at the 70ma reference mark. More
than one resistor may be used in parallel if necessary to
get the value exactly on. If modern resistors are used at
the cathodes and the meter its unlikely they will ever have
to be changed again.
To set the bias and quiescent current one can use a
couple of techniques. One is to key the transmitter in CW
with the level control all the way counter-clockwise, that
is NO drive. If you have a push-to-talk microphone you can
use that to key the transmitter, again with NO drive, the
level controll completely CCW. Set the bias using the pot
on the back of the power supply. This supply seems to be
pretty stable but you should check the resting current when
firing up the transmitter just each time just to make sure.
The main thing when trying to find problems is to
isolate them. Trying too many things at once is just
confusing. Its always well to start with resistance
measurements and then voltage measurements. I suggested
earlier that a marked up large scale schematic can be very
helpful. Almost any of the big stationary places like
Staples offers this service for very little.
Much of what I am saying here is simply repeating
Garrey's advice but summarizing it.
I have a T4XB on which I had to do a lot of work beause
someone had been into it. After struggling I got Garrey's
disc and discovered quickly that there was a wiring error
that caused an adjustment to be impossible. I also have an
R4B, the two are an outstanding combination. What I need now
is a decent antenna.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20471. new to me TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 08:24:54 UTC
From: geoffrey mendelson
Topic: 20471 Message: 20471

Well, it finally arrived.

It's a beat up (some plastic cracked and scratched top) TR-7. It had the bottom replaced with a sheet metal box covered with white contact paper. On the front of the box to the left is a second microphone jack and a toggle switch. The switch reads T on top and TTY on the bottom.

The power cord was soldered in place by soldering wires to the pins.

It has a calibrator, but does not seem to have a noise blanker. The only filter position filled is A.

It makes noise like it receives and changes if I put a wire in the antenna socket.

Now the bad news. It only displays every other band, for example when set to 14mHz, it displays 14mHz frequencies, when the band switch is moved to 7 it the display does not change. Similar with 3.5 mHz.

The really bad news is that the PTO knob is frozen. The knob was missing the setscrew and you can see where someone tried to tune it with a pair of pliers. I did too, but not hard enough to scratch the metal, which someone else did. There is nothing between the knob and the dial skirt, and inside is just a rotted rubber tube and a metal disk. If you remove them the brass tube which allows you to calibrate the dial moves and the frequency changes.

I have not tried to transmit yet.

What's really weird is that serial number is blacked out, but a previous owner inscribed his Israeli ID number.

My goal is to use it for a general purpose SW receiver and a ham band transceiver.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20472. more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 09:57:58 UTC
From: geoffrey mendelson
Topic: 20472 Message: 20472

1. if the PTO is beyond easy repair, can I just plug in an R-75 VFO and use it instead?

2. The radio has a 120 volt fan. So far I have been powering it off of 12v from wires soldered to the power plug. If remove the wires, and connect it to a PS-75 set for 230 volts, will the fan burn out?

Thanks in advance.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20473. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 11:55:48 UTC
From: Chgypsy@...
Topic: 20472 Message: 20473

4/28/2014 5:58:04 A.M. Eastern Daylight Time, geoffreymendelson@...
writes:

1. if the PTO is beyond easy repair, can I just plug in an R-75 VFO and
use it instead?
Don't know why it wouldn't.

2. So far I have been powering it off of 12v from wires soldered to the
power plug.
Shades of mobile installation. In any case left that way I would have two
positive leads, that way when you transmit the finals won't pull down the
rest. EG transmit = dimming lights.

The radio has a 120 volt fan. If I remove the wires, and connect it to a
PS-75 set for 230 volts, will the fan burn out?
Would have to check the schematics etc, off the top of my head I would say
no as its the primarys of the power supply at 230..
However the fan would be when you were doing RTTY more than anything in
any case. I run them just to stabilize the rig quicker.
I question is the PS 75 which I think is a bit light for a TR7, the normal
is a PS 7.

My opinions only. Carl WD8NHK

[Non-text portions of this message have been removed]

20474. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 12:28:47 UTC
From: geoffrey mendelson
Topic: 20472 Message: 20474

On 4/28/2014 2:55 PM, Chgypsy@... wrote:
> 4/28/2014 5:58:04 A.M. Eastern Daylight Time,
> geoffreymendelson@... writes:
>
> 1. if the PTO is beyond easy repair, can I just plug in an R-75
> VFO and
> use it instead?
>
> Don't know why it wouldn't.
ok, thanks.

> 2. So far I have been powering it off of 12v from wires soldered
> to the power plug.
>
> Shades of mobile installation. In any case left that way I would have
> two positive leads, that way when you transmit the finals won't pull
> down the rest. EG transmit = dimming lights.

It is wired across both pins on each side. I was told it did not have a
power cord, so I mail ordered a really well made one from the US via
eBay. I'd rather use that than have the bare metal exposed, but for now
I just want to see it work.

> The radio has a 120 volt fan. If I remove the wires, and connect
> it to a PS-75 set for 230 volts, will the fan burn out?
>
> Would have to check the schematics etc, off the top of my head I would
> say no as its the primarys of the power supply at 230..
> However the fan would be when you were doing RTTY more than anything
> in any case. I run them just to stabilize the rig quicker.
> I question is the PS 75 which I think is a bit light for a TR7, the
> normal is a PS 7.
The PS-75 is because I have one. :-)

I only plan to run it at about 20 watts SSB anyway.

Thank you and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20475. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 11:19:54 UTC
From: Joel Fournol
Topic: 20472 Message: 20475

hello Geoffrey,
i have à tr7 and ps7 om made i have also fan 220v /50hz/16w monacor i have repace this fan for tr7 by 12v pc fan this 220v fan is not use if you desired i can give us with à little contribution tks see you are again jo f6cht mail is joei.fournol@... jo f6cht.

Le 28/04/2014 11:57, geoffrey mendelson a écrit :
>
> 1. if the PTO is beyond easy repair, can I just plug in an R-75 VFO and
> use it instead?
>
> 2. The radio has a 120 volt fan. So far I have been powering it off of
> 12v from wires soldered to the power plug. If remove the wires, and
> connect it to a PS-75 set for 230 volts, will the fan burn out?
>
> Thanks in advance.
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>
>

[Non-text portions of this message have been removed]

20476. Aw: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 13:47:49 UTC
From: Dieter Horst
Topic: 20472 Message: 20476

Hello Geoffrey,

1. Sure, the RV-7 or RV-75 will work without a problem. However, I would try to repair the PTO. There is no special magic in it. See the service manual about the procedure to get it out. You have to remove the DR-7 and the band switch and tilt the front panel.

2. The fan will not burn out. All FA-7s were 120 Volts and the PSUs are wired such that the fan always gets 120 Volts, no matter if 240 or 120 is set as primary voltage. The PS-75 is a bit weak for the TR7, though. Fine for SSB maybe but in CW you should not use full output power.

Good luck and let us know if there are more issues.

73s, Dieter DL5RDO

----- Original Nachricht ----
Von: geoffrey mendelson <geoffreymendelson@...>
An: DrakeRadio@yahoogroups.com
Datum: 28.04.2014 11:57
Betreff: [DrakeRadio] more tr7 questions

> 1. if the PTO is beyond easy repair, can I just plug in an R-75 VFO and
> use it instead?
>
> 2. The radio has a 120 volt fan. So far I have been powering it off of
> 12v from wires soldered to the power plug. If remove the wires, and
> connect it to a PS-75 set for 230 volts, will the fan burn out?
>
> Thanks in advance.
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>
>

20477. Aw: [DrakeRadio] new to me TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 13:58:52 UTC
From: Dieter Horst
Topic: 20471 Message: 20477

One more note:

Do the usual board-reseating process before you start any trouble-shooting. Pull out ALL boards, the ones under the rear cage, the DR-7 and the ones below the DR-7. You *may* add some Deoxit to all the contacts before you put them back. This may also resolve your band-switching problem. Sounds like a bit in the band information is missing in the DR-7.

A calibrator is in all TR7s.

I had a PTO that was kind of stiff (not stuck). The problem was some old grease and dirt in the brass area. If you dismantle the whole thing and clean it you should be able to get it working again.

73s, Dieter DL5RDO

----- Original Nachricht ----
Von: geoffrey mendelson <geoffreymendelson@...>
An: DrakeRadio@yahoogroups.com
Datum: 28.04.2014 10:24
Betreff: [DrakeRadio] new to me TR-7

> Well, it finally arrived.
>
> It's a beat up (some plastic cracked and scratched top) TR-7. It had
> the bottom replaced with a sheet metal box covered with white contact
> paper. On the front of the box to the left is a second microphone jack
> and a toggle switch. The switch reads T on top and TTY on the bottom.
>
> The power cord was soldered in place by soldering wires to the pins.
>
> It has a calibrator, but does not seem to have a noise blanker. The only
> filter position filled is A.
>
> It makes noise like it receives and changes if I put a wire in the
> antenna socket.
>
> Now the bad news. It only displays every other band, for example when
> set to 14mHz, it displays 14mHz frequencies, when the band switch is
> moved to 7 it the display does not change. Similar with 3.5 mHz.
>
> The really bad news is that the PTO knob is frozen. The knob was missing
> the setscrew and you can see where someone tried to tune it with a pair
> of pliers. I did too, but not hard enough to scratch the metal, which
> someone else did. There is nothing between the knob and the dial skirt,
> and inside is just a rotted rubber tube and a metal disk. If you remove
> them the brass tube which allows you to calibrate the dial moves and the

> frequency changes.
>
> I have not tried to transmit yet.
>
> What's really weird is that serial number is blacked out, but a previous
> owner inscribed his Israeli ID number.
>
> My goal is to use it for a general purpose SW receiver and a ham band
> transceiver.
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>
>

20478. Re: [DrakeRadio] new to me TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 18:41:36 UTC
From: Craig Chanslor
Topic: 20471 Message: 20478

>
>Now the bad news. It only displays every other band, for example when
>set to 14mHz, it displays 14mHz frequencies, when the band switch is
>moved to 7 it the display does not change. Similar with 3.5 mHz.
<snip>

>Geoff.

The VFO band change is a function of the band switch probably dirty contact.
Craig W7TZL

20479. Re: new to me TR-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 21:40:33 UTC
From: lane denune
Topic: 20471 Message: 20479

As my Chinese friends would say, Rotsa Ruck!

[Non-text portions of this message have been removed]

20480. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 23:14:42 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20480

Swapped outg the 6EJ7 and 12AX7A.....no change in meter behavior.

Hard to tell whether or not AVC is active.....

N1CQ

[Non-text portions of this message have been removed]

20481. Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 23:33:13 UTC
From: Mark Jeffries
Topic: 20481 Message: 20481

I have a failed part in the R4A PTO, is there an easy way to get the metal shield off without removing the whole unit? Tnx in advance, Mark K6JJR

[Non-text portions of this message have been removed]

20482. Fw: Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-28 23:36:22 UTC
From: Mark Jeffries
Topic: 20481 Message: 20482

On Monday, April 28, 2014 4:33 PM, Mark Jeffries <sierradude96@...> wrote:

I have a failed part in the R4A PTO, is there an easy way to get the metal shield off without removing the whole unit? Tnx in advance, Mark K6JJR

[Non-text portions of this message have been removed]

20483. Re: [DrakeRadio] Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 00:36:37 UTC
From: Al Parker
Topic: 20481 Message: 20483

Hi Mark,
You need to pinch the "forked" pieces on each side, at the front. Hold
your tongue just right and you might make it in 3 or 4 tries. It will
come off, it's just hooked on.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/28/2014 7:33 PM, Mark Jeffries wrote:
> I have a failed part in the R4A PTO, is there an easy way to get the
> metal shield off without removing the whole unit? Tnx in advance, Mark K6JJR
>
> [Non-text portions of this message have been removed]
>
>

20484. T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 00:48:25 UTC
From: <rochep@...>
Topic: 20484 Message: 20484

I just checked the bias voltage on my T4XC, everything checks out (the 3.3 ohm shunt resistor is still good) and set the bias for 70 mA on the dial. (I have been using it probably closer to 50 mA because of dial calibration). I also adjusted the RF and injector trimmers on each band (they were close). But I notice I can REALLY get RF out of this transmitter, MUCH more than I thought possible?

on 80 CW into a dummy load (measuring plate current from the T4XB meter and power OUTPUT with two different watt meters):

With plate current of 0.50 amps (325 watts input) I measure 150 watts output (46% efficient).

With plate current of 0.52 amps (338 watts input) I measure 180 watts output (53% efficient)

Max output is over 200 watts out!! The plate current is WELL over 0.5 amps! (for just a second, just to see what I could get out).

I believe the efficiency values and I believe my wattmeters. I usually go for only 100 watts output, but are these numbers I read in the right ballpark? I thought the max these tubes could do was 200 watts INPUT?

paul

[Non-text portions of this message have been removed]

20485. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 01:10:25 UTC
From: Richard Knoppow
Topic: 20484 Message: 20485

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 28, 2014 5:48 PM
Subject: [DrakeRadio] T4XC plate current too high?

>I just checked the bias voltage on my T4XC, everything
>checks out (the 3.3 ohm shunt resistor is still good) and
>set the bias for 70 mA on the dial. (I have been using it
>probably closer to 50 mA because of dial calibration). I
>also adjusted the RF and injector trimmers on each band
>(they were close). But I notice I can REALLY get RF out of
>this transmitter, MUCH more than I thought possible?
>
> on 80 CW into a dummy load (measuring plate current from
> the T4XB meter and power OUTPUT with two different watt
> meters):
>
> With plate current of 0.50 amps (325 watts input) I
> measure 150 watts output (46% efficient).
>
>
> With plate current of 0.52 amps (338 watts input) I
> measure 180 watts output (53% efficient)
>
> Max output is over 200 watts out!! The plate current is
> WELL over 0.5 amps! (for just a second, just to see what I
> could get out).
>
>
> I believe the efficiency values and I believe my
> wattmeters. I usually go for only 100 watts output, but
> are these numbers I read in the right ballpark? I thought
> the max these tubes could do was 200 watts INPUT?
>
>
> paul
>
This is a T4XB isn't it, not a TR-4? The power levels do
not sound right. Around 150 watts is high for 80 meters.
Are you sure the final is not oscillating? Do the plates
show any color? I am sure Garry will have something to say
about this.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20486. Re: [DrakeRadio] Fw: Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 01:35:54 UTC
From: VE3AX/7
Topic: 20481 Message: 20486

Mark:

If you have a failed part in there, you will likely have to remove the PTO from the chassis anyways to get at it and replace it. Most PTO gearing needs a good cleaning by now and to do that properly the PTO needs to come out. It’s not a difficult task on the R-4A – three screws and three wires. Although you do have to remove the front panel to get it out. Some may disagree with that but I have found that removing the front panel, and more importantly, the clear dial window, makes it a lot easier! It will all need cleaning anyways. I do that with ALL my Drake 4-line acquisitions.

73

Peter
VE3AX/7

Fr om: Mark Jeffries
Sent: Monday, April 28, 2014 4:36 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] Fw: Need to get inside R4-A VFO

On Monday, April 28, 2014 4:33 PM, Mark Jeffries <sierradude96@...> wrote:

I have a failed part in the R4A PTO, is there an easy way to get the metal shield off without removing the whole unit? Tnx in advance, Mark K6JJR

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20487. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 01:44:26 UTC
From: Richard Knoppow
Topic: 20484 Message: 20487

----- Original Message -----
From: <rochep@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 28, 2014 5:48 PM
Subject: [DrakeRadio] T4XC plate current too high?

>I just checked the bias voltage on my T4XC, everything
>checks out (the 3.3 ohm shunt resistor is still good) and
>set the bias for 70 mA on the dial. (I have been using it
>probably closer to 50 mA because of dial calibration). I
>also adjusted the RF and injector trimmers on each band
>(they were close). But I notice I can REALLY get RF out of
>this transmitter, MUCH more than I thought possible?
>
> on 80 CW into a dummy load (measuring plate current from
> the T4XB meter and power OUTPUT with two different watt
> meters):
>
> With plate current of 0.50 amps (325 watts input) I
> measure 150 watts output (46% efficient).
>
>
> With plate current of 0.52 amps (338 watts input) I
> measure 180 watts output (53% efficient)
>
> Max output is over 200 watts out!! The plate current is
> WELL over 0.5 amps! (for just a second, just to see what I
> could get out).
>
>
> I believe the efficiency values and I believe my
> wattmeters. I usually go for only 100 watts output, but
> are these numbers I read in the right ballpark? I thought
> the max these tubes could do was 200 watts INPUT?
>
>
> paul
>
FWIW, I just tried my T4XB on 80 meters. I use an
external Motorola dummy load that measures 50 ohms on a
General Radio RF bridge. The watt meter is the one in my
MFJ antenna tuner. I've checked its calibration on the dummy
load against a couple of accurate RF voltmeters (General
Radio 1800A on a GR coaxial T). My maximum power in CW with
carefull tuning is a pointer's width above 160 Watts.

Indicated current is 380 ma. Now, the meter reads cathode current which is a combination of plate and screen grid current. I don't know how much current the screens draw, perhaps a few ma, plus I did not measure the plate voltage but assume it was about 650 volts from previous measurements under load. That comes out to around 247 Watts input. The efficiency assuming this is an accurate number (its probably reasonably close) the efficiency is about 65%, about what one would expect from a Class-AB amplifier running at maximum output. I have tested in the past and find I get about the same output on 40 meters but less on other bands including 160. Since there is no ALC when in CW this is probably the absolute maximum this particular transmitter is cabable of. The tubes are in reasonable condition and I do get fairly high output on 10 meters. If you meaure in TUNE you will be limited by the ALC to about 130 Watts, less on bands where the amplifier won't make it. The high output would make me suspicious of parasitics. While this is much less likely on a low band than at, say, 10 meters, its still possible. Its also possible that there is an unusual amount of drive. What does the rig do in TUNE?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20488. Re: [DrakeRadio] Fw: Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 01:50:25 UTC
From: <sierradude96@...>
Topic: 20481 Message: 20488

Thanks. I was hoping for an easier fix! Mark

[Non-text portions of this message have been removed]

20489. Re: [DrakeRadio] Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 01:52:14 UTC
From: <sierradude96@...>
Topic: 20481 Message: 20489

Thanks Al! I'll give it a try! Mark

[Non-text portions of this message have been removed]

20490. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 02:04:31 UTC
From: Richard Knoppow
Topic: 20484 Message: 20490

----- Original Message -----
From: "Richard Knoppow" <1oldlens1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, April 28, 2014 6:44 PM
Subject: Re: [DrakeRadio] T4XC plate current too high?

Another measurment. I decided to try 10 meters. Set up
as before. Max out in CW 140 Watts, curent indicated 360 ma.
indicated plate input 234 watts, assuming Ep = 650 volts.
Efficiency approximately 60%. In TUNE maximum power out is
about 120 Watts. This is pretty good for a T4.
I checked to see that the plate current dip co-incided
with output power peak. Plates show no color.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20491. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 02:16:45 UTC
From: Garey Barrell
Topic: 20484 Message: 20491

Paul -

Yeah, that's too high. With new PA (6JB6) tubes, you can get about 140W output in TUNE MODE on
the low bands. This is ALC limited, and typically occurs at about 11 o'clock on the GAIN control. If you switch to CW, the ALC is disabled plus the current limiting on the PA screens
is removed, and you can get 150W max into a 50 ohm, resistive load. 160M falls off a bit due to
Pi-Net limitations.

If you are getting 200W output, something is wrong. The TR-4(C) will put out about 200W max with THREE (3) PA tubes.

Have you checked neutralization of the PA?? You may have some sort of parasitic oscillation in
the PA.

As for your input power, I'd cross check the plate meter with a known good meter. These are very inexpensive meters, (<$1 in production quantities,) and are not known for their linearity... Which is why we calibrate them at 70 mA, as that is the current that matters.

Typical efficiency is 50 - 55% based on Cathode current x Plate voltage, a little less on the
top two bands. The original power supply is pretty consistent at 650 VDC at full load and 120
VAC primary power.

By the way, the 'Revised Tune-up' from Drake specifies 340 mA MAX current on 160, 80, 40 and
20M, to comply with the revised FCC regulations regarding 'Purity of Emissions'. 15 and 10M are
tuned for maximum output. I doubt if any of them come close to meeting TODAY'S 'Purity of Emissions' regulation, but thankfully they are 'grandfathered in' by FCC.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> I just checked the bias voltage on my T4XC, everything checks out (the 3.3 ohm shunt resistor is still good) and set the bias for 70 mA on the dial. (I have been using it probably closer to 50 mA because of dial calibration). I also adjusted the RF and injector trimmers on each band (they were close). But I notice I can REALLY get RF out of this

transmitter, MUCH more than I thought possible?
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> on 80 CW into a dummy load (measuring plate current from the T4XB meter and power OUTPUT with two different watt meters):
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> With plate current of 0.50 amps (325 watts input) I measure 150 watts output (46% efficient).
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> With plate current of 0.52 amps (338 watts input) I measure 180 watts output (53% efficient)
>
> Max output is over 200 watts out!! The plate current is WELL over 0.5 amps! (for just a second, just to see what I could get out).
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>
> I believe the efficiency values and I believe my wattmeters. I usually go for only 100 watts output, but are these numbers I read in the right ballpark? I thought the max these tubes could do was 200 watts INPUT?
>
>
> paul
>
>

20492. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 02:32:14 UTC
From: <rochep@...>
Topic: 20484 Message: 20492

To be honest, I don't really believe my plate current IS that high, and I was surprised I could get 200 watts!!! Can I simply disconnect the T4XC meter and use my DMM to measure the plate current? I would believe that.

On TUNE I am limited to about 130 watts, these high readings were on CW. I never run the rig this high, just wonderin' if something is wrong.

I checked for "neutralization" insofar as the plate DIP is at maximum output (on all bands). Done for tonight, I'll keep reading.

p

[Non-text portions of this message have been removed]

20493. Re: [DrakeRadio] T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 02:39:27 UTC
From: Garey Barrell
Topic: 20484 Message: 20493

Paul -

Couple of ways.

1. You know the value of your 3.3 ohm meter shunt resistor. Measure the voltage across the meter and the series calibration resistor and calculate. All topside, and no soldering!

2. Disconnect the Cathode lead coming through the bypass cap on the PA shield wall under the
chassis and put your DMM in series with it. Rig upside down and soldering involved.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
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> On TUNE I am limited to about 130 watts, these high readings were on CW. I never run the rig this high, just wonderin' if something is wrong.
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> I checked for "neutralization" insofar as the plate DIP is at maximum output (on all bands). Done for tonight, I'll keep reading.
>
> p
>
>

20494. Re: [DrakeRadio] Fw: Need to get inside R4-A VFO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 03:08:37 UTC
From: Steve Wedge
Topic: 20481 Message: 20494

I will, of course, agree with this. It makes for a convenient time to clean the front panel and knobs. The front panel is quite easy to remove and replace - especially the non-B's that don't have a neon bulb to worry about.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 28, 2014, at 9:35 PM, "VE3AX/7" <ve3ax@...> wrote:
>
> Mark:
>
> If you have a failed part in there, you will likely have to remove the PTO from the chassis anyways to get at it and replace it. Most PTO gearing needs a good cleaning by now and to do that properly the PTO needs to come out. It’s not a difficult task on the R-4A – three screws and three wires. Although you do have to remove the front panel to get it out. Some may disagree with that but I have found that removing the front panel, and more importantly, the clear dial window, makes it a lot easier! It will all need cleaning anyways. I do that with ALL my Drake 4-line acquisitions.
>
> 73
>
> Peter
> VE3AX/7
>
> Fr om: Mark Jeffries
> Sent: Monday, April 28, 2014 4:36 PM
> To: drakeradio@...m
> Subject: [DrakeRadio] Fw: Need to get inside R4-A VFO
>
> On Monday, April 28, 2014 4:33 PM, Mark Jeffries <sierradude96@...> wrote:
>
> I have a failed part in the R4A PTO, is there an easy way to get the metal shield off without removing the whole unit? Tnx in advance, Mark K6JJR
>
> [Non-text portions of this message have been removed]
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20495. r4-a passband tuner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 03:22:30 UTC
From: fred
Topic: 20495 Message: 20495

hello, all i have a r4-a that i am trying to get up and going but the passband tuner slugs are not moving as the manual states they do not move at all when the knob is turned.
i was wondering if someone could give me some direction on what to do , i can see the round flat washer in the back turning but no movement from the slugs.
73 fred kc4ena

20496. alignment crystals for R4-B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 04:56:59 UTC
From: David Nichols
Topic: 20496 Message: 20496

I need a couple of crystals for the alignment of my R4-B.
I need to get on WWV at 15 MHz or 10 MHz, there are four xtals that will do the job.
25.6 and 26.1 for 15MHz and 20.6 or 21.1, Either will do for me.
The instructions also call for a 12.6 crystal so if anyone has these and dont mind parting with them please let me know how much you will need for the shipping and crystals.
Im good in the book if you need a zip.
David - KX7C

[Non-text portions of this message have been removed]

20497. Re: [DrakeRadio] alignment crystals for R4-B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 05:08:36 UTC
From: Richard Knoppow
Topic: 20496 Message: 20497

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: "drakeradio@yahoogroups.com"
<DrakeRadio@yahoogroups.com>
Sent: Monday, April 28, 2014 9:56 PM
Subject: [DrakeRadio] alignment crystals for R4-B

>I need a couple of crystals for the alignment of my R4-B.
> I need to get on WWV at 15 MHz or 10 MHz, there are four
> xtals that will do the job.
> 25.6 and 26.1 for 15MHz and 20.6 or 21.1, Either will do
> for me.
> The instructions also call for a 12.6 crystal so if anyone
> has these and dont mind parting with them please let me
> know how much you will need for the shipping and crystals.
> Im good in the book if you need a zip.
> David - KX7C
>
FWIW all the WARC band crystals are available from
International Crystal. However, if you just want to set the
calibrator you can use any radio you have that will receive
WWV. The calibrator is connected at the antenna input so you
can just hang a loop from that to the WWV receiver and hear
the calibrator. The 12.6 mhz crystal is necessary if you
want to align `160 meters but is not needed for anything
else. If you want to use 160 you will need the crystal
anyway.
I bought a full set of crystals except one (that came
from someone else) for my R4B to cover the WARC bands and
all of 10 meters. The `10 mhz WWV crytal also covers 30
meters.

There are cheaper sources of crystals but ICM has all
the Drake specs and their crystals are newly manuactured and
excellent. I've also bought crystals from them for Collins
gear.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20498. TR-4CW band switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 05:21:30 UTC
From: David Nichols
Topic: 20498 Message: 20498

Ok, I am pretty happy with the rig now. It really helps warm the shack up this time of year. But, I have noticed a problem with the band switch at the 40 meters position.

These are my observations, first of all it works fine on 40 if I set it the right way and we all know I shouldnt really have to monkey with it.
If I go to 40 from 80 the switch doesnt usually make up. If I go to 40 from 20 it seems to work every time. I have checked the wafers and cleaned them all. The cleaning was a job, when I got the rig each wafer had some kind of grease on it. I have never seen this done before and I suppose I am lucky it is working at all. Anyway, I used a lot of deox and even cleaned the tarnish and grease off. Then I used the deox gold on all wafers. So, I can hear the difference in the receive on 40 now that I have learned it has the problem. It really doesnt have much of a receive unless I take it from 20 to 40.
The big question??? Which wafer is most likely the one I need to fix? I would rather ask this than spend a day trying to figure it out with trial and mostly error.

David - KX7C

[Non-text portions of this message have been removed]

20499. L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 06:16:00 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20499

I purchase an L4B with low output on all bands thinking it was the tubes. Replaced the tubes and the same exact problem. It takes only 20 watts of drive to generate 280 milliamps of grid current and about 350 mils plate current. Tune and load positions are normal into a 50 ohm resistive load. It is acting as if there is very low high voltage but high voltage is normal at around 2.5 KV underload. All the RF chokes look normal, no burn marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side band audio quality is normal at the 400 watts. Its like it is not able to load the antenna... not able to transfer the power it is capable of generating. Anyone out there have any ideas? Thanks

[Non-text portions of this message have been removed]

20500. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 06:51:42 UTC
From: vacuuminded2@...
Topic: 20499 Message: 20500

Have you tried all bands? Mine had low output and acted funny on two bands, and was found to be contact fingers that had lost their temper on the band switch resulting in poor, or no contact. Would have taken forever to find had I not seen a small arc.

Let us know what you find.

Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On Apr 29, 2014, at 1:16 AM, <engstrommike@...> wrote:

> I purchase an L4B with low output on all bands thinking it was the tubes. Replaced the tubes and the same exact problem. It takes only 20 watts of drive to generate 280 milliamps of grid current and about 350 mils plate current. Tune and load positions are normal into a 50 ohm resistive load. It is acting as if there is very low high voltage but high voltage is normal at around 2.5 KV underload. All the RF chokes look normal, no burn marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side band audio quality is normal at the 400 watts. Its like it is not able to load the antenna... not able to transfer the power it is capable of generating. Anyone out there have any ideas? Thanks
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20501. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 07:21:55 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20501

Yes, the output is low (400 watts) on 80, 40, 20, 15 and 10. The band switch looks in good shape, plenty of tension on the fingers and contacts. Thank you.

[Non-text portions of this message have been removed]

20502. Re: [DrakeRadio] alignment crystals for R4-B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 05:31:55 UTC
From: David Nichols
Topic: 20496 Message: 20502

Ok Richard, that is a consideration on the 12.6 crystal. Ill wait and see if someone has something tucked away and doesnt need anymore. It looks like I need to wait one way or the other to get this R4-B alignment done. It sure has a lot of steps to get done.
David - KX7C

From: Richard Knoppow <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Monday, April 28, 2014 10:08 PM
Subject: Re: [DrakeRadio] alignment crystals for R4-B

----- Original Message -----
From: "David Nichols" <hamcomm7@...>
To: "drakeradio@yahoogroups.com"
<DrakeRadio@yahoogroups.com>
Sent: Monday, April 28, 2014 9:56 PM
Subject: [DrakeRadio] alignment crystals for R4-B

>I need a couple of crystals for the alignment of my R4-B.
> I need to get on WWV at 15 MHz or 10 MHz, there are four
> xtals that will do the job.
> 25.6 and 26.1 for 15MHz and 20.6 or 21.1, Either will do
> for me.
> The instructions also call for a 12.6 crystal so if anyone
> has these and dont mind parting with them please let me
> know how much you will need for the shipping and crystals.
> Im good in the book if you need a zip.
> David - KX7C
>
FWIW all the WARC band crystals are available from
International Crystal. However, if you just want to set the
calibrator you can use any radio you have that will receive
WWV. The calibrator is connected at the antenna input so you
can just hang a loop from that to the WWV receiver and hear
the calibrator. The 12.6 mhz crystal is necessary if you
want to align `160 meters but is not needed for anything
else. If you want to use 160 you will need the crystal
anyway.
I bought a full set of crystals except one (that came
from someone else) for my R4B to cover the WARC bands and
all of 10 meters. The `10 mhz WWV crytal also covers 30
meters.

There are cheaper sources of crystals but ICM has all
the Drake specs and their crystals are newly manuactured and
excellent. I've also bought crystals from them for Collins

gear.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

20503. RE: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 10:35:30 UTC
From: keith evans
Topic: 20499 Message: 20503

Hi Mike,

I wonder if you have an open circuit on the Heater Line to one of the Tubes,

Therefore only one tube is working.

Maybe a problem with a Tube Socket, or a Dry joint.

I had a similar issue on another make of Amp.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of engstrommike@...
Sent: 29 April 2014 07:16
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] L4B - low output with new tubes.

I purchase an L4B with low output on all bands thinking it was the tubes. Replaced the tubes and the same exact problem. It takes only 20 watts of drive to generate 280 milliamps of grid current and about 350 mils plate current. Tune and load positions are normal into a 50 ohm resistive load. It is acting as if there is very low high voltage but high voltage is normal at around 2.5 KV underload. All the RF chokes look normal, no burn marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side band audio quality is normal at the 400 watts. Its like it is not able to load the antenna... not able to transfer the power it is capable of generating. Anyone out there have any ideas? Thanks

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20504. Re: [DrakeRadio] r4-a passband tuner

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 11:09:20 UTC
From: Steve Wedge
Topic: 20495 Message: 20504

The knob is probably slipping on the shaft. It uses a spacer between the knob and the shaft, but before you tighten it too much, consider disassembling it, cleaning out the dried old grease and regreasing it. Use general purpose grease on the areas where you see the old grease, after you clean out the old stuff with mineral spirits. You may have to unsolder two places at the back of the box to get the back cover off.

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On Apr 28, 2014, at 11:22 PM, fred <kc4ena@...> wrote:
>
> hello, all i have a r4-a that i am trying to get up and going but the
> passband tuner slugs are not moving as the manual states they do not
> move at all when the knob is turned.
> i was wondering if someone could give me some direction on what to do
> , i can see the round flat washer in the back turning but no movement
> from the slugs.
> 73 fred kc4ena
>

[Non-text portions of this message have been removed]

20505. TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 11:41:45 UTC
From: <damico@...>
Topic: 20505 Message: 20505

Hello group,
I have a tough question for the knowledgeable gurus: I have a TR7 that mounts the 1st version of the 2nd IF / Audio Board (the one with the diode detector). I have also at hand the 2nd version of the board, the one that mounts the MC1496.
Now the question is: are they perfectly interchangeable ? Can I just "plug-in" board version 2 in place of the version 1 ?
Thanks for any advice on this....
73,
Michele IZ2EAS

[Non-text portions of this message have been removed]

20506. Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 12:48:42 UTC
From: Joe Pyles
Topic: 20505 Message: 20506

When Drake changed to the late 2nd IF/ Audio
board they made a small change to the PBT/REF
board, They removed R1058 (220 ohm) and then
removed R1060 (68 ohm) and put R1060 where R1058
was. This was to increase the BFO signal into the
MC1496 product detector. On the PBT/REF board you
should see 2 68 ohm resistors with an empty spot
between them. Even in the latest service manual the change was not documented.

73, Joe KC9LAD

At 07:41 AM 4/29/2014, you wrote:
>
>
>
>
>
>Hello group,
>I have a tough question for the knowledgeable
>gurus: I have a TR7 that mounts the 1st version
>of the 2nd IF / Audio Board (the one with the
>diode detector). I have also at hand the 2nd
>version of the board, the one that mounts the MC1496.
>Now the question is: are they perfectly
>interchangeable ? Can I just "plug-in" board
>version 2 in place of the version 1 ?
>Thanks for any advice on this....
>73,
>Michele IZ2EAS
>
>
>
>
>[Non-text portions of this message have been removed]
>
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>
>No virus found in this message.
>Checked by AVG - <http://www.avg.com>www.avg.com
>Version: 2014.0.4570 / Virus Database: 3931/7410 - Release Date: 04/28/14

[Non-text portions of this message have been removed]

20507. RE: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 13:02:27 UTC
From: keith evans
Topic: 20505 Message: 20507

Hi Joe,

Now that snippet is very interesting.. thanks.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Joe Pyles
Sent: 29 April 2014 13:49
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

When Drake changed to the late 2nd IF/ Audio board they made a small change to the PBT/REF board, They removed R1058 (220 ohm) and then removed R1060 (68 ohm) and put R1060 where R1058 was. This was to increase the BFO signal into the MC1496 product detector. On the PBT/REF board you should see 2 68 ohm resistors with an empty spot between them. Even in the latest service manual the change was not documented.

73, Joe KC9LAD

At 07:41 AM 4/29/2014, you wrote:
>
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>
>
>
>Hello group,
>I have a tough question for the knowledgeable
>gurus: I have a TR7 that mounts the 1st version
>of the 2nd IF / Audio Board (the one with the
>diode detector). I have also at hand the 2nd
>version of the board, the one that mounts the MC1496.
>Now the question is: are they perfectly
>interchangeable ? Can I just "plug-in" board
>version 2 in place of the version 1 ?
>Thanks for any advice on this....
>73,
>Michele IZ2EAS
>
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[Non-text portions of this message have been removed]

20508. Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 13:09:32 UTC
From: <damico@...>
Topic: 20505 Message: 20508

Thanks Joe ! Does anybody know if the "upgrade" (i.e. replacing version 1 with version 2) is worth the trouble ? Is there any perceptible difference ?
73,

Michele

---In DrakeRadio@yahoogroups.com, <epyles@...> wrote :

When Drake changed to the late 2nd IF/ Audio
board they made a small change to the PBT/REF
board, They removed R1058 (220 ohm) and then
removed R1060 (68 ohm) and put R1060 where R1058
was. This was to increase the BFO signal into the
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20509. RE: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 13:18:11 UTC
From: keith evans
Topic: 20505 Message: 20509

Hi Michele

I did it on one of my TR7's some years ago, and I thought the Audio Response was much "smoother".

So for the small amount of work required, I would say Yes.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of damico@...
Sent: 29 April 2014 14:10
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Thanks Joe ! Does anybody know if the "upgrade" (i.e. replacing version 1 with version 2) is worth the trouble ? Is there any perceptible difference ?

73,

Michele

---In DrakeRadio@yahoogroups.com, <epyles@...> wrote :

When Drake changed to the late 2nd IF/ Audio
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73, Joe KC9LAD

At 07:41 AM 4/29/2014, you wrote:
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>Hello group,
>I have a tough question for the knowledgeable
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20510. RE: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 12:41:27 UTC
From: Michael Engstrom
Topic: 20499 Message: 20510

Hello Keith,
I have good heater voltage to both tubes. They both light up as you would expect. When I put those tubes in a different amplifier it will do 1500 watts easy. I think the answer lies in the fact that the amplifier develops 280ma of grid current with only 20 watts of drive, and only 350ma of plate current. The thing is I don't know that much about amplifiers, but I'm wondering if maybe 1 or both the doorknob capacitors on the anodes might be bad?
Thank you.
On Apr 29, 2014 3:35 AM, "keith evans" <g3vkw@btconnect.com> wrote:

>
>
> Hi Mike,
>
> I wonder if you have an open circuit on the Heater Line to one of the
> Tubes,
>
> Therefore only one tube is working.
>
> Maybe a problem with a Tube Socket, or a Dry joint.
>
> I had a similar issue on another make of Amp.
>
> 73
>
> Keith G3VKW
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
> Behalf Of engstrommike@...
> Sent: 29 April 2014 07:16
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] L4B - low output with new tubes.
>
> I purchase an L4B with low output on all bands thinking it was the tubes.
> Replaced the tubes and the same exact problem. It takes only 20 watts of
> drive to generate 280 milliamps of grid current and about 350 mils plate
> current. Tune and load positions are normal into a 50 ohm resistive load.
> It is acting as if there is very low high voltage but high voltage is
> normal at around 2.5 KV underload. All the RF chokes look normal, no burn
> marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side
> band audio quality is normal at the 400 watts. Its like it is not able to
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20511. Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 12:19:30 UTC
From: Paul Dulaff
Topic: 20505 Message: 20511

Michele

The second version of the 2nd IF board is functionally equivalent to the first version. Either version can be placed in any TR7 without requiring modifications.

If the second version board is an unknown quantity, checking function and alignment after installation might be useful. There are modifications offered to the 2nd IF board that reduce key clicks on CW and improve the frequency response of the audio output stage. I have tried the audio output modifications and found improvement. Have not checked into the CW modifications yet.

Paul - WB2NMI

----- Original Message -----
From: damico@...
To: DrakeRadio@yahoogroups.com
Sent: Tue, 29 Apr 2014 07:41:45 -0400 (EDT)
Subject: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Hello group,

I have a tough question for the knowledgeable gurus: I have a TR7 that mounts the 1st version of the 2nd IF / Audio Board (the one with the diode detector). I have also at hand the 2nd version of the board, the one that mounts the MC1496.

Now the question is: are they perfectly interchangeable ? Can I just "plug-in" board version 2 in place of the version 1 ?

Thanks for any advice on this....

73,

Michele IZ2EAS

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20512. Re: [DrakeRadio] T-4XB low RF out?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 13:32:35 UTC
From: n1ohn@yahoo.com
Topic: 20393 Message: 20512

Hi Richard sorry for the late response.... yeah we had a brain fart with testing the tubes lol after some more testing its clear that my 6JB6 tubes need replacing. Project on hold until I get some new tubes :)

Thanks for looking and all your help Richard!!!

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20513. Re: [DrakeRadio] alignment crystals for R4-B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 13:47:57 UTC
From: Garey Barrell
Topic: 20496 Message: 20513

David -

Keep moving..... The Calibrator can't be moved far enough off frequency to matter for alignment. If you haven't adjusted it, it's almost certainly within a few Hz at worst.

If you have a local broadcast station on a 25 or 50 kHz interval, you can connect a wire to the
R-4B antenna lead and bring the other end near the BC radio antenna.

The 12.6 MHz crystal is only used to align the 160M band, and has no effect on other bands. You
only need it if you want to operate on 160M, and can be added at any time.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok Richard, that is a consideration on the 12.6 crystal. Ill wait and see if someone has something tucked away and doesnt need anymore. It looks like I need to wait one way or the other to get this R4-B alignment done. It sure has a lot of steps to get done.
> David - KX7C
>
>

20514. RE: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 15:25:59 UTC
From: keith evans
Topic: 20499 Message: 20514

Hi Mike,

The Grid Current is awfully high, If you increase the Loading, Does that reduce the Grid Current, And increase the Anode Current

As it should?

Also is the Fault there on all bands?

If by increasing the loading, it decreases the grid and increases the anode current it can indicate that :-

A, The Pi Tank is only “seeing “ one Tube, And the Wrong setting you are seeing is because the Impedance with 1 tube is different,

So make sure the Grid Circuits to Earth are both ok.

B You may have a Faulty Band Switch, or Capacitor in the PI Tank , But this would show up if you changed Bands.

Hopefully you will find the fault, and some others will chip in with advice.

BUT DO BE VERY CAREFUL, THERE ARE DANGEROUS VOLTAGES THERE!!!

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Michael Engstrom
Sent: 29 April 2014 13:41
To: DrakeRadio@yahoogroups.com
Subject: RE: [DrakeRadio] L4B - low output with new tubes.

Hello Keith,
I have good heater voltage to both tubes. They both light up as you would expect. When I put those tubes in a different amplifier it will do 1500 watts easy. I think the answer lies in the fact that the amplifier develops 280ma of grid current with only 20 watts of drive, and only 350ma of plate current. The thing is I don't know that much about amplifiers, but I'm wondering if maybe 1 or both the doorknob capacitors on the anodes might be bad?
Thank you.
On Apr 29, 2014 3:35 AM, "keith evans" <g3vkw@...> wrote:

>
>
> Hi Mike,

>
> I wonder if you have an open circuit on the Heater Line to one of the
> Tubes,
>
> Therefore only one tube is working.
>
> Maybe a problem with a Tube Socket, or a Dry joint.
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> I had a similar issue on another make of Amp.
>
> 73
>
> Keith G3VKW
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
> Behalf Of engstrommike@yahoo.com
> Sent: 29 April 2014 07:16
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] L4B - low output with new tubes.
>
> I purchase an L4B with low output on all bands thinking it was the tubes.
> Replaced the tubes and the same exact problem. It takes only 20 watts of
> drive to generate 280 milliamps of grid current and about 350 mils plate
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20515. Re: [DrakeRadio] alignment crystals for R4-B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 15:34:42 UTC
From: David Nichols
Topic: 20496 Message: 20515

Ok Garey, I havent touched it yet. I dont have the items they call for in the instructions so I wont get to it until I have what I need to do the job. I couldnt begin to say what someone else has done so I like to know where Im at with my rigs.
Im about 70 miles from Spokane and there is one radio station up here about 18 miles north of me. I cant pick it up worth a darn and I really dont care because I dont care for their format. hi hi
I had thought about teaming the receiver up with the TR-4CW instead of a vfo and for that I dont need 160 for sure. But, If I get it done, maybe Ill like the way it sounds.
David - KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 29, 2014 6:47 AM
Subject: Re: [DrakeRadio] alignment crystals for R4-B

David -

Keep moving..... The Calibrator can't be moved far enough off frequency to matter for alignment. If you haven't adjusted it, it's almost certainly within a few Hz at worst.

If you have a local broadcast station on a 25 or 50 kHz interval, you can connect a wire to the
R-4B antenna lead and bring the other end near the BC radio antenna.

The 12.6 MHz crystal is only used to align the 160M band, and has no effect on other bands. You
only need it if you want to operate on 160M, and can be added at any time.

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David Nichols wrote:
> Ok Richard, that is a consideration on the 12.6 crystal. Ill wait and see if someone has something tucked away and doesnt need anymore. It looks like I need to wait one way or the other to get this R4-B alignment done. It sure has a lot of steps to get done.
> David - KX7C
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[Non-text portions of this message have been removed]

20516. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 15:44:02 UTC
From: Doug Coffman
Topic: 20499 Message: 20516

Install only one tube in the amp and attempt to load it up and see if the Ip and Ig readings are what you have seen with two tubes. Shut the amp down and verity the HV has dissipated from the amp, move the tube to the other socket and repeat. This will prove or disprove that one the SOCKETS electrical components has failed. If one socket doesn't work then you know where to start your search.

Doug - N9XTF

Sent from my iPhone

> On Apr 29, 2014, at 2:16, <engstrommike@...> wrote:
>
> I purchase an L4B with low output on all bands thinking it was the tubes. Replaced the tubes and the same exact problem. It takes only 20 watts of drive to generate 280 milliamps of grid current and about 350 mils plate current. Tune and load positions are normal into a 50 ohm resistive load. It is acting as if there is very low high voltage but high voltage is normal at around 2.5 KV underload. All the RF chokes look normal, no burn marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side band audio quality is normal at the 400 watts. Its like it is not able to load the antenna... not able to transfer the power it is capable of generating. Anyone out there have any ideas? Thanks
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20517. Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 16:35:46 UTC
From: Paul Dulaff
Topic: 20505 Message: 20517

Joe

Thanks for that info on the BFO injection change on the PBT board. I wasn't aware of this change or recall having this detail discussed on the sites that discuss the product detector change of the 2nd IF board. I have TR7's, one with early and another with late 2nd IF boards. The TR7 with the later version of 2nd IF board does sound better to me.

I've read where this change to the 2nd IF board was only a cost reduction and did not yield improved audio.

I have TR7 s/n 10XX and 91XX. I will try a swap of the later PBT and 2nd IF boards into the early TR7 and see if there is an obvious change in recovered audio.

I did the audio stage mods to the early version of the 2nd IF board and did perceive and improvement.

Paul - WB2NMI

----- Original Message -----
From: Paul Dulaff <pdulaff@embarqmail.com>
To: DrakeRadio@yahoogroups.com
Sent: Tue, 29 Apr 2014 08:19:30 -0400 (EDT)
Subject: Re: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Michele

The second version of the 2nd IF board is functionally equivalent to the first version. Either version can be placed in any TR7 without requiring modifications.

If the second version board is an unknown quantity, checking function and alignment after installation might be useful. There are modifications offered to the 2nd IF board that reduce key clicks on CW and improve the frequency response of the audio output stage. I have tried the audio output modifications and found improvement. Have not checked into the CW modifications yet.

Paul - WB2NMI

----- Original Message -----

From: damico@...

To: DrakeRadio@yahoogroups.com

Sent: Tue, 29 Apr 2014 07:41:45 -0400 (EDT)

Subject: [DrakeRadio] TR7: replacing 2nd IF/Audio Board ?

Hello group,

I have a tough question for the knowledgeable gurus: I have a TR7 that mounts the 1st version of the 2nd IF / Audio Board (the one with the diode detector). I have also at hand the 2nd version of the board, the one that mounts the MC1496.

Now the question is: are they perfectly interchangeable ? Can I just "plug-in" board version 2 in place of the version 1 ?

Thanks for any advice on this....

73,

Michele IZ2EAS

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20518. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 16:49:56 UTC
From: Evan Rolek
Topic: 20499 Message: 20518

Keith,

A number of things can be examined. Something is definately wrong. First, 280 ma of grid current is excessive and should be avoided. Something in the 200-220 range is best per the Eimac spec sheet. With that low amount of drive (20 watts) it is surprising you are getting that much grid current, and the plate current is on the low side. Things I would check are...

Plate blocking capacitors.
RF safety choke across the output lead.
Relay contacts.
Coax connectors.
Calibration of grid current meter circuit.
Calibration of HV meter circuit.
Grid grounding RF chokes on each tube.
Grid bypass ceramic capacitors on each tube.

Please keep the group informed of your progress and be careful around that High Voltage!

73,

Evan

-----Original Message-----
From: Michael Engstrom <michael.engstrom.73@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Tue, Apr 29, 2014 11:24 am
Subject: RE: [DrakeRadio] L4B - low output with new tubes.

Hello Keith,
I have good heater voltage to both tubes. They both light up as you would expect. When I put those tubes in a different amplifier it will do 1500 watts easy. I think the answer lies in the fact that the amplifier develops 280ma of grid current with only 20 watts of drive, and only 350ma of plate current. The thing is I don't know that much about amplifiers, but I'm wondering if maybe 1 or both the doorknob capacitors on the anodes might be bad?
Thank you.
On Apr 29, 2014 3:35 AM, "keith evans" <g3vkw@...> wrote:

>
>
> Hi Mike,
>
> I wonder if you have an open circuit on the Heater Line to one of the
> Tubes,
>

> Therefore only one tube is working.
>
> Maybe a problem with a Tube Socket, or a Dry joint.
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> I had a similar issue on another make of Amp.
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> 73
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> Keith G3VKW
>
> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
> Behalf Of engstrommike@...
> Sent: 29 April 2014 07:16
> To: DrakeRadio@yahoogroups.com
> Subject: [DrakeRadio] L4B - low output with new tubes.
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> I purchase an L4B with low output on all bands thinking it was the tubes.
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20519. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 18:31:33 UTC
From: Steve Wedge
Topic: 20499 Message: 20519

Check your output relay. I've seen similar (albeit with NO output as I had completely melted the contacts!) - mucho grid current, because the power's got to go somewhere...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Michael Engstrom
Sent: Tuesday, April 29, 2014 8:41 AM
To: DrakeRadio@yahoogroups.com
Subject: RE: [DrakeRadio] L4B - low output with new tubes.

Hello Keith,
I have good heater voltage to both tubes. They both light up as you would expect. When I put those tubes in a different amplifier it will do 1500 watts easy. I think the answer lies in the fact that the amplifier develops 280ma of grid current with only 20 watts of drive, and only 350ma of plate current. The thing is I don't know that much about amplifiers, but I'm wondering if maybe 1 or both the doorknob capacitors on the anodes might be bad?
Thank you.
On Apr 29, 2014 3:35 AM, "keith evans" <g3vkw@...> wrote:

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> Hi Mike,
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> I wonder if you have an open circuit on the Heater Line to one of the
> Tubes,
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> Therefore only one tube is working.
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> Keith G3VKW
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> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
> Behalf Of engstrommike@...
> Sent: 29 April 2014 07:16
> To: DrakeRadio@yahoogroups.com

> Subject: [DrakeRadio] L4B - low output with new tubes.
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> I purchase an L4B with low output on all bands thinking it was the tubes.
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[Non-text portions of this message have been removed]

20520. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 18:50:23 UTC
From: Garey Barrell
Topic: 20499 Message: 20520

Is the LOAD capacitor actually turning when you turn the LOAD control??? Sounds like the PA is
tuned for MINIMUM loading, i.e., maximum LOAD capacitance.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge wrote:
> Check your output relay. I've seen similar (albeit with NO output as I had completely melted the contacts!) - mucho grid current, because the power's got to go somewhere...
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
>
> All my computers have my signature with various pearls of wisdom appended thereto.
>
>
>
> From: Michael Engstrom
> Sent: Tuesday, April 29, 2014 8:41 AM
> To: DrakeRadio@yahoogroups.com
> Subject: RE: [DrakeRadio] L4B - low output with new tubes.
>
>
>
> Hello Keith,
> I have good heater voltage to both tubes. They both light up as you would
> expect. When I put those tubes in a different amplifier it will do 1500
> watts easy. I think the answer lies in the fact that the amplifier develops
> 280ma of grid current with only 20 watts of drive, and only 350ma of plate
> current. The thing is I don't know that much about amplifiers, but I'm
> wondering if maybe 1 or both the doorknob capacitors on the anodes might be
> bad?
> Thank you.
> On Apr 29, 2014 3:35 AM, "keith evans" <g3vkw@...> wrote:
>
>>
>> Hi Mike,
>>
>> I wonder if you have an open circuit on the Heater Line to one of the

>> Tubes,
>>
>> Therefore only one tube is working.
>>
>> Maybe a problem with a Tube Socket, or a Dry joint.
>>
>> I had a similar issue on another make of Amp.
>>
>> 73
>>
>> Keith G3VKW
>>
>> From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
>> Behalf Of engstrommike@...
>> Sent: 29 April 2014 07:16
>> To: DrakeRadio@yahoogroups.com
>> Subject: [DrakeRadio] L4B - low output with new tubes.
>>
>> I purchase an L4B with low output on all bands thinking it was the tubes.
>> Replaced the tubes and the same exact problem. It takes only 20 watts of
>> drive to generate 280 milliamps of grid current and about 350 mils plate
>> current. Tune and load positions are normal into a 50 ohm resistive load.
>> It is acting as if there is very low high voltage but high voltage is
>> normal at around 2.5 KV underload. All the RF chokes look normal, no burn
>> marks. Continuity is excellent on RFC4 (to the 3-500's anode). Single side
>> band audio quality is normal at the 400 watts. Its like it is not able to
>> load the antenna... not able to transfer the power it is capable of
>> generating. Anyone out there have any ideas? Thanks
>>
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20521. RE: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 20:17:25 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20521

Hello Keith, At 280ma of grid current, which is around the maximum rated for two tubes as I understand, it should be pulling approximately 800ma plate current. But both tubes are only pulling 300ma plate current. if that's too much grid currant I'll turn the drive down to 10 watts and grid current around 220ma. The loading capacitor is nearly fully CounterClockwise - at maximum capacity. Increasing the load capacitor (turning it ClockWise) does drop the grid current and increase plate current slightly, but there is no additional RF output... it actually drops. Further, there's no dipping of the plate after turning the load capacitor CW. The symptoms are the same on all bands. Thank you for your thoughts Keith. There is more to check.

[Non-text portions of this message have been removed]

20522. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 20:21:44 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20522

Thank you Doug that is a great idea.

[Non-text portions of this message have been removed]

20523. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 20:30:19 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20523

Thank you Steve. The output really is in good shape. good solid contacts nice and shiny.

[Non-text portions of this message have been removed]

20524. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 20:32:09 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20524

Thank you Garey. Mechanically the load capacitor is in good shape... it turns freely.

[Non-text portions of this message have been removed]

20525. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 20:44:49 UTC
From: <engstrommike@...>
Topic: 20499 Message: 20525

Thank you Keith and Evan. I Need to do some more dogging. ..

[Non-text portions of this message have been removed]

20526. R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 22:43:26 UTC
From: David Nichols
Topic: 20526 Message: 20526

HELLO, MY R4-B HAS AN EXTRA PIECE OF COAX ADDED TO T5 AND RUNS BACK TO AN RCA JACK MOUNTED IN THE SPARE POSITION. THE CENTER OF THE COAX IS CONNECTED TO T5 VIA A SMALL DISC CAPACITOR. THE CAP IS CONNECTED TO THE LEFT PIN. LOOKING AT THE BOTTOM OF T5 FROM THE FRONT.
ANYWAY, I HAVE NOT BEEN ABLE TO FIND THIS MOD ONLINE SO IM WONDERING WHAT IT IS FOR. DOES ANYONE HAVE AN IDEA? IM WONDERING IF SOMEONE HAD A FREQUENCY COUNTER HOOKED UP OR SOMETHING.
DAVID - KX7C

[Non-text portions of this message have been removed]

20527. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 22:56:46 UTC
From: Chgypsy@...
Topic: 20526 Message: 20527

In a message dated 4/29/2014 6:46:20 P.M. Eastern Daylight Time,
hamcomm7@... writes:

HELLO, MY R4-B HAS AN EXTRA PIECE OF COAX ADDED TO T5 AND RUNS BACK TO AN
RCA JACK MOUNTED IN THE SPARE POSITION. THE CENTER OF THE COAX IS CONNECTED
TO T5 VIA A SMALL DISC CAPACITOR. THE CAP IS CONNECTED TO THE LEFT PIN.
LOOKING AT THE BOTTOM OF T5 FROM THE FRONT.
ANYWAY, I HAVE NOT BEEN ABLE TO FIND THIS MOD ONLINE SO IM WONDERING WHAT
IT IS FOR. DAVID - KX7C
David, I think you will find that it is the connection for the Drake 2
meter converter. If the coax has a small cap intregal to it I'd almost
guarantee it. Carl WD8NHK

[Non-text portions of this message have been removed]

20528. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 23:00:43 UTC
From: <rochep@...>
Topic: 20484 Message: 20528

This morning I looked at my radio on 40 and 80 into dummy load:

40 meters TUNE 100 watts output reads 0.32 Amps on T4XC meter (LOAD control about 4). This is about 53% efficient, seems OK, right?

80 meters TUNE 100 watts output reads 0.45 amps on T4XC meter!!!! And the LOAD control is FULLY MAXED. I just "re-aligned" this TX, maybe my "alignment" was a problem?

paul

[Non-text portions of this message have been removed]

20529. WTB Knob and Skirt

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 23:36:14 UTC
From: <wa4bhk@...>
Topic: 20529 Message: 20529

I'm looking for the VFO tuning knob and skirt for a TR 4 or R4 B. If anyone has one they wish to sell, please contact me off list at wa4bhk@....
Thanks, Lawrence

[Non-text portions of this message have been removed]

20530. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 23:50:57 UTC
From: David Nichols
Topic: 20526 Message: 20530

Ahhhh, ok, I hadnt thought about that. Well if you need to tap to that point then that is what Ill say it is. Its a neat installation and I dont see how it can hurt anything so Ill leave it alone. I was more curious than anything, thanks Carl.
David - KX7C

From: "Chgypsy@..." <Chgypsy@...>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, April 29, 2014 3:56 PM
Subject: Re: [DrakeRadio] R4-B MOD

In a message dated 4/29/2014 6:46:20 P.M. Eastern Daylight Time,
hamcomm7@... writes:

HELLO, MY R4-B HAS AN EXTRA PIECE OF COAX ADDED TO T5 AND RUNS BACK TO AN
RCA JACK MOUNTED IN THE SPARE POSITION. THE CENTER OF THE COAX IS CONNECTED
TO T5 VIA A SMALL DISC CAPACITOR. THE CAP IS CONNECTED TO THE LEFT PIN.
LOOKING AT THE BOTTOM OF T5 FROM THE FRONT.
ANYWAY, I HAVE NOT BEEN ABLE TO FIND THIS MOD ONLINE SO IM WONDERING WHAT
IT IS FOR. DAVID - KX7C
David, I think you will find that it is the connection for the Drake 2
meter converter. If the coax has a small cap intregal to it I'd almost
guarantee it. Carl WD8NHK

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20531. WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-29 23:56:45 UTC
From: LAWRENCE MATHESON
Topic: 20531 Message: 20531

I'm looking for the VFO tuning knob and skirt for a TR 4 or R4 B.
If anyone has a knob and skirt for sale, please reply off list to:
wa4bhk@.... Thanks

20532. Re: [DrakeRadio] WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 00:08:17 UTC
From: Steve Wedge
Topic: 20531 Message: 20532

These do show up on eBay once in a while. I bought a NOS knob a couple of months ago that truly is NOS - and looks wicked awesome on my R-4B!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 29, 2014, at 7:56 PM, LAWRENCE MATHESON <wa4bhk@...t> wrote:
>
> I'm looking for the VFO tuning knob and skirt for a TR 4 or R4 B.
> If anyone has a knob and skirt for sale, please reply off list to:
> wa4bhk@.... Thanks
>

[Non-text portions of this message have been removed]

20533. Re: [DrakeRadio] WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 00:10:11 UTC
From: Doug Coffman
Topic: 20531 Message: 20533

There is a guy selling brand new ones. He's on there all the time. I don't remember his handle though.

Sent from my iPhone

> On Apr 29, 2014, at 20:08, Steve Wedge <w1es1982@...> wrote:
>
> These do show up on eBay once in a while. I bought a NOS knob a couple of months ago that truly is NOS - and looks wicked awesome on my R-4B!
>
> Steve Wedge, W1ES/4
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
> > On Apr 29, 2014, at 7:56 PM, LAWRENCE MATHESON <wa4bhk@...> wrote:
> >
> > I'm looking for the VFO tuning knob and skirt for a TR 4 or R4 B.
> > If anyone has a knob and skirt for sale, please reply off list to:
> > wa4bhk@.... Thanks
> >
>
> [Non-text portions of this message have been removed]
>
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[Non-text portions of this message have been removed]

20534. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 00:30:01 UTC
From: Michael Engstrom
Topic: 20499 Message: 20534

I did as you suggested Doug and there is no difference between the two sockets. I think whatever the problem is is after the anodes. Seems all good from the sockets back.

I would like to thank everyone else that has contributed information. This is a most interesting problem. I've always heard that door knob capacitors explode when they go bad, these look good and appear perfectly normal. I'll get a couple and swap them out in addition to all the other suggestions that have been offered. Thank you all very much.
There's two door knob caps... .001's at 5KV
I will report back.
On Apr 29, 2014 1:21 PM, <engstrommike@...> wrote:

>
>
> Thank you Doug that is a great idea.
>
> [Non-text portions of this message have been removed]
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20535. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 00:32:47 UTC
From: Steve Wedge
Topic: 20499 Message: 20535

Output relay. You circulate all the current in the tank and nothing is getting out.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 29, 2014, at 8:30 PM, Michael Engstrom <michael.engstrom.73@...> wrote:
>
> I did as you suggested Doug and there is no difference between the two
> sockets. I think whatever the problem is is after the anodes. Seems all
> good from the sockets back.
>
> I would like to thank everyone else that has contributed information. This
> is a most interesting problem. I've always heard that door knob capacitors
> explode when they go bad, these look good and appear perfectly normal. I'll
> get a couple and swap them out in addition to all the other suggestions
> that have been offered. Thank you all very much.
> There's two door knob caps... .001's at 5KV
> I will report back.
> On Apr 29, 2014 1:21 PM, <engstrommike@...> wrote:
>
> >
> >
> > Thank you Doug that is a great idea.
> >
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20536. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:18:47 UTC
From: Michael Engstrom
Topic: 20499 Message: 20536

Thank you Steve. Checked and cleaned the contacts on the TR relay. They're good. My power meter is external to the L4B so I know the relay is transferring what small amount of power there is to the SO239.
On Apr 29, 2014 5:32 PM, "Steve Wedge" <w1es1982@...> wrote:

>
>
> Output relay. You circulate all the current in the tank and nothing is
> getting out.
>
> Steve Wedge, W1ES/4
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
> > On Apr 29, 2014, at 8:30 PM, Michael Engstrom <
> michael.engstrom.73@...> wrote:
> >
> > I did as you suggested Doug and there is no difference between the two
> > sockets. I think whatever the problem is is after the anodes. Seems all
> > good from the sockets back.
> >
> > I would like to thank everyone else that has contributed information.
> This
> > is a most interesting problem. I've always heard that door knob
> capacitors
> > explode when they go bad, these look good and appear perfectly normal.
> I'll
> > get a couple and swap them out in addition to all the other suggestions
> > that have been offered. Thank you all very much.
> > There's two door knob caps... .001's at 5KV
> > I will report back.
> > On Apr 29, 2014 1:21 PM, <engstrommike@...> wrote:
> >
> > >
> > >
> > > Thank you Doug that is a great idea.
> > >
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20537. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:29:22 UTC
From: Steve Wedge
Topic: 20499 Message: 20537

Cold solder joint? This one is going to be a deusie when it's found...

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 29, 2014, at 9:18 PM, Michael Engstrom <michael.engstrom.73@...> wrote:
>
> Thank you Steve. Checked and cleaned the contacts on the TR relay. They're
> good. My power meter is external to the L4B so I know the relay is
> transferring what small amount of power there is to the SO239.
> On Apr 29, 2014 5:32 PM, "Steve Wedge" <w1es1982@...> wrote:
>
> >
> >
> > Output relay. You circulate all the current in the tank and nothing is
> > getting out.
> >
> > Steve Wedge, W1ES/4
> >
> > Sent from my iPhone; please excuse any typographical malaprops.
> >
> > > On Apr 29, 2014, at 8:30 PM, Michael Engstrom <
> > michael.engstrom.73@gmail.com> wrote:
> > >
> > > I did as you suggested Doug and there is no difference between the two
> > > sockets. I think whatever the problem is is after the anodes. Seems all
> > > good from the sockets back.
> > >
> > > I would like to thank everyone else that has contributed information.
> > This
> > > is a most interesting problem. I've always heard that door knob
> > capacitors
> > > explode when they go bad, these look good and appear perfectly normal.
> > I'll
> > > get a couple and swap them out in addition to all the other suggestions
> > > that have been offered. Thank you all very much.
> > > There's two door knob caps... .001's at 5KV
> > > I will report back.
> > > On Apr 29, 2014 1:21 PM, <engstrommike@...> wrote:
> > >
> > > >
> > > >
> > > > Thank you Doug that is a great idea.
> > > >
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20538. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:37:43 UTC
From: Michael Engstrom
Topic: 20499 Message: 20538

I agree!
On Apr 29, 2014 6:29 PM, "Steve Wedge" <w1es1982@...> wrote:

>
>
> Cold solder joint? This one is going to be a deusie when it's found...
>
> Steve Wedge, W1ES/4
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
> > On Apr 29, 2014, at 9:18 PM, Michael Engstrom <
> michael.engstrom.73@...> wrote:
> >
> > Thank you Steve. Checked and cleaned the contacts on the TR relay.
> They're
> > good. My power meter is external to the L4B so I know the relay is
> > transferring what small amount of power there is to the SO239.
> > On Apr 29, 2014 5:32 PM, "Steve Wedge" <w1es1982@...> wrote:
> >
> > >
> > >
> > > Output relay. You circulate all the current in the tank and nothing is
> > > getting out.
> > >
> > > Steve Wedge, W1ES/4
> > >
> > > Sent from my iPhone; please excuse any typographical malaprops.
> > >
> > > > On Apr 29, 2014, at 8:30 PM, Michael Engstrom <
> > > michael.engstrom.73@...> wrote:
> > > >
> > > > I did as you suggested Doug and there is no difference between the
> two
> > > > sockets. I think whatever the problem is is after the anodes. Seems
> all
> > > > good from the sockets back.
> > > >
> > > > I would like to thank everyone else that has contributed information.
> > > This
> > > > is a most interesting problem. I've always heard that door knob
> > > capacitors
> > > > explode when they go bad, these look good and appear perfectly
> normal.
> > > I'll

> > > > get a couple and swap them out in addition to all the other
> suggestions
> > > > that have been offered. Thank you all very much.
> > > > There's two door knob caps... .001's at 5KV
> > > > I will report back.
> > > > On Apr 29, 2014 1:21 PM, <engstrommike@...m> wrote:
> > > >
> > > > >
> > > > >
> > > > > Thank you Doug that is a great idea.
> > > > >
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20539. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:39:33 UTC
From: Garey Barrell
Topic: 20526 Message: 20539

David -

That's a 'pickoff' for a panadaptor, I scope tuned to 5.465 MHz. Something like a Heath HO-13
or similar. It displays a portion of the band, at least that seen by the roofing filter or about 8 kHz wide. Modern transceivers have them now, display is a line along the bottom, with
little pips of varying height, depending upon strength, for any signals in that bandwidth. Some
have modified Software Defined Receiver kits to tune them to that frequency. Look up 'panadaptor' on Google and you'll get plenty of discussion.

You are correct, it doesn't hurt anything, as long as the alignment has been touched up to compensate for the loading.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> HELLO, MY R4-B HAS AN EXTRA PIECE OF COAX ADDED TO T5 AND RUNS BACK TO AN RCA JACK MOUNTED IN THE SPARE POSITION. THE CENTER OF THE COAX IS CONNECTED TO T5 VIA A SMALL DISC CAPACITOR. THE CAP IS CONNECTED TO THE LEFT PIN. LOOKING AT THE BOTTOM OF T5 FROM THE FRONT.
> ANYWAY, I HAVE NOT BEEN ABLE TO FIND THIS MOD ONLINE SO IM WONDERING WHAT IT IS FOR. DOES ANYONE HAVE AN IDEA? IM WONDERING IF SOMEONE HAD A FREQUENCY COUNTER HOOKED UP OR SOMETHING.
> DAVID - KX7C
>

20540. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:40:35 UTC
From: Garey Barrell
Topic: 20484 Message: 20540

Sounds like your 80M antenna is not presenting a 50 ohm load to the transmitter.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> This morning I looked at my radio on 40 and 80 into dummy load:
>
> 40 meters TUNE 100 watts output reads 0.32 Amps on T4XC meter (LOAD control about 4). This is about 53% efficient, seems OK, right?
>
> 80 meters TUNE 100 watts output reads 0.45 amps on T4XC meter!!!! And the LOAD control is FULLY MAXED. I just "re-aligned" this TX, maybe my "alignment" was a problem?
>
> paul
>

20541. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:43:49 UTC
From: Garey Barrell
Topic: 20499 Message: 20541

Michael -

Did you confirm that the LOAD capacitor is turning when you turn the knob??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20542. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 01:51:17 UTC
From: Michael Engstrom
Topic: 20499 Message: 20542

Thanks Garey,

Confirmed. Its clean, smooth turning and free of dust.

At this point I'm thinking coupling to the tank circuit. All that potential energy... just can't get there... I'm not sure where to get door knob caps. First I need to dig in some old boxes.

Mike. AA7WM
On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@...> wrote:

>
>
> Michael -
>
> Did you confirm that the LOAD capacitor is turning when you turn the knob??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
>
>

[Non-text portions of this message have been removed]

20543. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 02:03:45 UTC
From: <rochep@...>
Topic: 20484 Message: 20543

My 80M antenna is a dummy load. I re-aligned 3.5 MHz band, but I STILL measure about 150 watts out on 80. I think my wattmeter was wrong on the 1.5 KW setting, what I was reading as 200 watts was probably closer to 150 watts.

p

[Non-text portions of this message have been removed]

20544. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 02:06:28 UTC
From: Garey Barrell
Topic: 20499 Message: 20544

OK. Well the measurements you have are exactly what you would see if the LOAD capacitor was stuck at maximum capacitance. Increasing the LOAD control reduces the Grid current as the PLATE
current increases. Is it the same on more than one band?? Is the PLATE dip very sharp??

What does the L-4B Wattmeter show, Forward or Reflected?? Are all four stators of the LOAD cap
tied together and to the 700 pF 'extra' cap on 80M?

I guess an open Plate Blocking cap could present that way, I've never seen one go. It can't be
a component 'shorting' the output as you have plenty of power to fry anything across the output. Are you using a dummy load? Or a known 'matched' antenna?

Surplus Sales of Nebraska has a nice selection of doorknob caps. Also Max-Gain Systems of Marietta, GA.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael Engstrom wrote:
> Thanks Garey,
>
> Confirmed. Its clean, smooth turning and free of dust.
>
> At this point I'm thinking coupling to the tank circuit. All that potential
> energy... just can't get there... I'm not sure where to get door knob caps.
> First I need to dig in some old boxes.
>
> Mike. AA7WM
> On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@...> wrote:
>
>>
>> Michael -
>>
>> Did you confirm that the LOAD capacitor is turning when you turn the knob??
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs

>> <www.k4oah.com>
>>
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> [Non-text portions of this message have been removed]
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20545. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 02:08:46 UTC
From: Garey Barrell
Topic: 20484 Message: 20545

Paul -

OK, 150W is much more believeable, at least in CW MODE. If you're seeing that much in TUNE, I'd
wonder if the ALC may not be working? Does the output flatten out about 11 o'clock on the GAIN
control? V1??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> My 80M antenna is a dummy load. I re-aligned 3.5 MHz band, but I STILL measure about 150 watts out on 80. I think my wattmeter was wrong on the 1.5 KW setting, what I was reading as 200 watts was probably closer to 150 watts.
>
> p
>
> [Non-text portions of this message have been removed]
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20546. CALIBRATOR TONE ON 40 METERS MISSING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 02:13:23 UTC
From: David Nichols
Topic: 20546 Message: 20546

Ok, I re-cleaned and inspected the band switch on my TR-4CW today. I seem to have 40 meters working now no matter which way I approach it. It didnt want to work if I turned up from the 80 meter position. However, now I cant get the calibrator signal to come in. The calibrator is working, it comes in fine on all the other bands. Playing with the band switch knob if I approach the 40 meter position from 20 meters and dont let the switch land in the indent I get the calibrator signal. Its a good thing I have spare cabinet screws, it appears Im going to wear these out. Now I thought the calibrator signal came in on the wire that is threaded through the whole in the wafer. How can I get it off of the indent position?
David - KX7C

[Non-text portions of this message have been removed]

20547. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 02:32:01 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20547

Still no luck in solving s-meter issue.

Meter drifts to S2 and stays there with both weak and strong signals..........

Has anyone had the same problem. ?

Changed V11 and V13.

Bill
N1CQ

[Non-text portions of this message have been removed]

20548. New file uploaded to DrakeRadio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 03:23:11 UTC
From: DrakeRadio@yahoogroups.com
Topic: 3736 Message: 20548

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the DrakeRadio
group.

File : /TR-7 PBT-Ref Undocumented Revision for BFO level increase.pdf
Uploaded by : nu0c <jshorney@...>
Description : Increase TR-7 BFO level for Version 2 2nd IF/Audio board. Information
courtesy of Joe Pyles KC9LAD

You can access this file at the URL:
https://groups.yahoo.com/group/DrakeRadio/files/TR-7%20PBT-Ref%20Undocumented%20Revision%20for%20BFO%20level%20increase.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

nu0c <jshorney@...>

20549. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 04:26:06 UTC
From: <rochep@...>
Topic: 20484 Message: 20549

OK, I THINK part of my problem is in NEUTRALIZATION and another part is ERROR in how to tune this T4XC up!!

I thought that BASICALLY my dip in plate current went well with the increase in output. But I did not realize that close is not close enough!! For example, when I tune for a complete plate DIP at 0.27 amps this does NOT correspond to maximum output power; max power comes a TAD different on the PLATE dial, but at max OUTPUT the plate current reads 0.42 amps!!! I have been using my WATT meter to tune for maximum output.

For example, on 15 CW in TUNE if I SIMPLY go for maximum OUTPUT I get 130 watts out with 0.46 A (on my T4XC meter), or 42% efficiency. But if I instead tune for the DIP in plate current at max output I get 110 watts out at 0.34A, or 50% efficiency. Minimum plate current is clearly the way to go, but since I am not neutralized I am sending my current HIGHER than it has to be, I am off resonance and screwing everything up.

Also, I was tuning back and forth and back and for the MAX output. If I simply follow the directions n TUNE:
1. keep LOAD at 0 and peak RF TUNE
2. set GAIN to 12 o'clock and then DIP plate
3. increase LOAD until I get no more output power
4. Re-dip plate a last time

NOW things seem normal into dummy load:
on 80 CW 140 watts out at 0.42A (52% efficiency)
on 40 CW 140 watts out at 0.39A (55% efficiency)
on 20 CW 150 watts out at 0.43A (53% efficiency)
on 15 CW 100 watts out at 0.34A (45% efficiency)
on 10 CW 70 watts out at 0.32A (35% efficiency)

This is WITHOUT rocking back and forth increasing gain, re-dip PLATE, re-peak LOAD, etc...

I think my high readings of plate current are a neutralization problem, I will fix this<

QUESTION: Why is neutralization done on the 28.5 MHz band? I rarely use that band, I usually use 40 or 15 meters. Is it OK to do neutralization on 40 or 20, or is there something special about doing it on 10 meters?

Am I barking up the right tree?

paul

[Non-text portions of this message have been removed]

20550. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 04:37:44 UTC
From: Michael Engstrom
Topic: 20499 Message: 20550

Hello Garey,

Rotating the Load has little effect on the grid current. Rotating the load Clock Wise increases plate current and diminishes power output. The increased plate current responds to a very shallow re dipping of the plate with diminished power out. Power output is greatest (abt 400 watts) with load at full CCW position which is max capacitance. (That's not right!) The plate current dip is rather sharp with the load control full CCW . I am using a Heath Kit cantenna oil filled dummy load. Results are the same on all bands.
On Apr 29, 2014 8:52 PM, "Garey Barrell" <k4oah@...> wrote:

>
>
> OK. Well the measurements you have are exactly what you would see if the
> LOAD capacitor was
> stuck at maximum capacitance. Increasing the LOAD control reduces the Grid
> current as the PLATE
> current increases. Is it the same on more than one band?? Is the PLATE dip
> very sharp??
>
> What does the L-4B Wattmeter show, Forward or Reflected?? Are all four
> stators of the LOAD cap
> tied together and to the 700 pF 'extra' cap on 80M?
>
> I guess an open Plate Blocking cap could present that way, I've never seen
> one go. It can't be
> a component 'shorting' the output as you have plenty of power to fry
> anything across the
> output. Are you using a dummy load? Or a known 'matched' antenna?
>
> Surplus Sales of Nebraska has a nice selection of doorknob caps. Also
> Max-Gain Systems of
> Marietta, GA.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
> > Thanks Garey,
> >

> > Confirmed. Its clean, smooth turning and free of dust.
> >
> > At this point I'm thinking coupling to the tank circuit. All that
> potential
> > energy... just can't get there... I'm not sure where to get door knob
> caps.
> > First I need to dig in some old boxes.
> >
> > Mike. AA7WM
> > On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@...> wrote:
> >
> >>
> >> Michael -
> >>
> >> Did you confirm that the LOAD capacitor is turning when you turn the
> knob??
> >>
> >> 73, Garey - K4OAH
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20551. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 04:41:31 UTC
From: Michael Engstrom
Topic: 20499 Message: 20551

L4B watt meter shows about 400 Watts forward and just a few watts reflected. The load capacitor is all tied together and there's an extra cap in there for 80 meters. Its functions fine mechanically.
On Apr 29, 2014 8:52 PM, "Garey Barrell" <k4oah@...> wrote:

>
>
> OK. Well the measurements you have are exactly what you would see if the
> LOAD capacitor was
> stuck at maximum capacitance. Increasing the LOAD control reduces the Grid
> current as the PLATE
> current increases. Is it the same on more than one band?? Is the PLATE dip
> very sharp??
>
> What does the L-4B Wattmeter show, Forward or Reflected?? Are all four
> stators of the LOAD cap
> tied together and to the 700 pF 'extra' cap on 80M?
>
> I guess an open Plate Blocking cap could present that way, I've never seen
> one go. It can't be
> a component 'shorting' the output as you have plenty of power to fry
> anything across the
> output. Are you using a dummy load? Or a known 'matched' antenna?
>
> Surplus Sales of Nebraska has a nice selection of doorknob caps. Also
> Max-Gain Systems of
> Marietta, GA.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
> > Thanks Garey,
> >
> > Confirmed. Its clean, smooth turning and free of dust.
> >
> > At this point I'm thinking coupling to the tank circuit. All that
> potential
> > energy... just can't get there... I'm not sure where to get door knob
> caps.
> > First I need to dig in some old boxes.

> >
> > Mike. AA7WM
> > On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@...> wrote:
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> >>
> >> Michael -
> >>
> >> Did you confirm that the LOAD capacitor is turning when you turn the
> knob??
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[Non-text portions of this message have been removed]

20552. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 12:02:20 UTC
From: Chgypsy@...
Topic: 20526 Message: 20552

hamcomm7@... writes:

Ahhhh, ok, I hadnt thought about that. Well if you need to tap to that point then that is what Ill say it is. Its a neat installation and I dont see how it can hurt anything so Ill leave it alone. I was more curious than anything, thanks Carl.
David - KX7C
David I did forget that it was also the input for the 6 meter converter. You might like to go to _www.wb4hfn.com_ (http://www.wb4hfn.com) go to the Drake manuals and check out TC-2 & TC6
Carl WD8NHK

[Non-text portions of this message have been removed]

20553. SPR-4 For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 12:38:09 UTC
From: Steve Wedge
Topic: 20553 Message: 20553

Going to have an SPR-4 ready shortly. It's working fine; I did a few minor tweaks to it and replaced the antenna connector with a new, correct RCA jack (the old one was loose and chewed up inside). Top bank is full of xtals, which is what came from the factory. Cosmetically, there are a couple of round scratch marks on the front panel from knobs that were too close (we've all seen this), a few small scratches in the covers. The covers appear to be of the painted variety instead of the plastic-like covering that some of them had. Still has the same type of surface (crackle?).

Unmodified and the power supply board has no signs of excessive heat dissipation like some of them have.

$350. Photos by this evening.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

20554. Re: [DrakeRadio] CALIBRATOR TONE ON 40 METERS MISSING

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 13:44:25 UTC
From: Garey Barrell
Topic: 20546 Message: 20554

David -

Is the switch wiper or contact touching the INSULATED wire that is threaded through the switch
WAFER???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Ok, I re-cleaned and inspected the band switch on my TR-4CW today. I seem to have 40 meters working now no matter which way I approach it. It didnt want to work if I turned up from the 80 meter position. However, now I cant get the calibrator signal to come in. The calibrator is working, it comes in fine on all the other bands. Playing with the band switch knob if I approach the 40 meter position from 20 meters and dont let the switch land in the indent I get the calibrator signal. Its a good thing I have spare cabinet screws, it appears Im going to wear these out. Now I thought the calibrator signal came in on the wire that is threaded through the whole in the wafer. How can I get it off of the indent position?
> David - KX7C
>

20555. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 13:57:22 UTC
From: Garey Barrell
Topic: 20448 Message: 20555

Measure voltages on V4, V11 and V17. The S-Meter is in a bridge circuit that compares the current drawn by V17 with that drawn by V4 and V11. With no input signal the bridge is 'balanced' by adjustment of R70. When the AVC, which goes more negative with increasing signal
strength reduces the current drawn by V11 and unbalances the bridge. This unbalance causes the
meter to read upscale an amount set by R187.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> Still no luck in solving s-meter issue.
>
> Meter drifts to S2 and stays there with both weak and strong signals..........
>
> Has anyone had the same problem. ?
>
> Changed V11 and V13.
>
>
>
> Bill
> N1CQ
>
>

20556. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 14:12:36 UTC
From: VE3AX/7
Topic: 20526 Message: 20556

David/Carl:

Actually, when using the TC-2 and TC-6 tx converters, the HF RECEIVE line from the T-4XB is usually routed through a band selector switch in the CC-1 receive converter console, which is then routed directly back to the RX ANT input on the R-4B when HF is selected. There was no mod required for the R-4 receiver series.

It’s the TX line for the transmit converters that uses a small value cap (I’ve used a gimmick in the past) to pick off a bit of RF out of the PA grid compartment.

The VHF mod also required a break in the PA screen voltage line which was run out to two spare RCA connectors you mounted in existing holes on the back of the T-4X. Turning on either the TC-2 or TC-6 disabled the PA. If you run across a T-4X , TR-4 series with this mod you will need to jumper that connection directly at the tx to get the PA to work.

I have run across various 4-line gear with “added coax and RCA connectors” for speech compressors, scopes, phone patches, and on the SPR-4, FS-4 synth connections. If nicely done I’ll leave them in but too often they are “not pretty” and they are removed.

73

Peter
VE3AX/7
“Just up the road” from David, in Grand Forks, BC

From: Chgypsy@aol.com
Sent: Wednesday, April 30, 2014 5:02 AM
To: DrakeRadio@...m
Cc: hamcomm7@...
Subject: Re: [DrakeRadio] R4-B MOD

hamcomm7@... writes:

Ahhhh, ok, I hadnt thought about that. Well if you need to tap to that
point then that is what Ill say it is. Its a neat installation and I dont see
how it can hurt anything so Ill leave it alone. I was more curious than
anything, thanks Carl.
David - KX7C
David I did forget that it was also the input for the 6 meter converter.
You might like to go to _www.wb4hfn.com_ (http://www.wb4hfn.com) go to
the Drake manuals and check out TC-2 & TC6
Carl WD8NHK

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20557. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 14:17:33 UTC
From: whitebear1122@...
Topic: 206 Message: 20557

Thanks for that info Steve! I'll give it a try! 73, Scott WA9WFA

----- Original Message -----
From: "Steve Toth" <stoth47@...>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, April 27, 2014 3:31:28 PM
Subject: Re: [DrakeRadio] FS-4 Question

29.1 xtal, band switch on 15 mtr, preselector on 20 mtr works fb on 17 also with the twins in transceiver mode.

-- Steve

"Technically.....the glass is ALWAYS full."

[Non-text portions of this message have been removed]

20558. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 14:21:52 UTC
From: whitebear1122@...
Topic: 206 Message: 20558

Thanks Evan for your experience with the FS-4 . Agreed, if the FS-4 is plugged into an unused crystal socket, and the crystal switch is in the normal position when the FS-4 is not in use, wonder how the FS-4 can load down the oscillator. I saw the comment again last weekend. If I have time this weekend I'll wire up a cable and try out the FS-4. 73, Scott WA9WFA

----- Original Message -----
From: "Evan Rolek" <k9sqg@arrl.net>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, April 27, 2014 2:25:40 PM
Subject: Re: [DrakeRadio] FS-4 Question

Scott,

I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.

73,

Evan, K9SQG

[Non-text portions of this message have been removed]

20559. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 14:36:15 UTC
From: Garey Barrell
Topic: 20484 Message: 20559

Paul -

When all else fails..... :-)

Tuning for max output is fine, and quicker than the 'tune and load' sequence. AS LONG AS the
LAST thing you do is DIP THE PLATE!!!

Neutralization is to counteract capacitive 'feedback' through the elements of the PA tubes. It
affects ALL bands, but has the most effect on the highest band. So if you neutralize on the highest band, (where the adjustment is most critical,) the other bands will also be neutralized.

You can neutralize first on 15 or even 20M, which is a broader null and easier to find, and then
'refine' that null on 10M.

Your output on 15 and 10 will improve with neutralization, but you may have damaged the PA tubes
by running off resonance. With good PA tubes in a _neutralized_ PA, you should see 100-110 W.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> OK, I THINK part of my problem is in NEUTRALIZATION and another part is ERROR in how to tune this T4XC up!!
>
> I thought that BASICALLY my dip in plate current went well with the increase in output. But I did not realize that close is not close enough!! For example, when I tune for a complete plate DIP at 0.27 amps this does NOT correspond to maximum output power; max power comes a TAD different on the PLATE dial, but at max OUTPUT the plate current reads 0.42 amps!!! I have been using my WATT meter to tune for maximum output.
>
> For example, on 15 CW in TUNE if I SIMPLY go for maximum OUTPUT I get 130 watts out with 0.46 A (on my T4XC meter), or 42% efficiency. But if I instead tune for the DIP in plate current at max output I get 110 watts out at 0.34A, or 50% efficiency. Minimum plate current is clearly the way to go, but since I am not neutralized I am sending my current HIGHER than it has to be, I am off resonance and screwing everything up.
>
> Also, I was tuning back and forth and back and for the MAX output. If I simply follow the

directions n TUNE:
> 1. keep LOAD at 0 and peak RF TUNE
> 2. set GAIN to 12 o'clock and then DIP plate
> 3. increase LOAD until I get no more output power
> 4. Re-dip plate a last time
>
> NOW things seem normal into dummy load:
> on 80 CW 140 watts out at 0.42A (52% efficiency)
> on 40 CW 140 watts out at 0.39A (55% efficiency)
> on 20 CW 150 watts out at 0.43A (53% efficiency)
> on 15 CW 100 watts out at 0.34A (45% efficiency)
> on 10 CW 70 watts out at 0.32A (35% efficiency)
>
> This is WITHOUT rocking back and forth increasing gain, re-dip PLATE, re-peak LOAD, etc...
>
> I think my high readings of plate current are a neutralization problem, I will fix this<
>
> QUESTION: Why is neutralization done on the 28.5 MHz band? I rarely use that band, I usually use 40 or 15 meters. Is it OK to do neutralization on 40 or 20, or is there something special about doing it on 10 meters?
>
> Am I barking up the right tree?
>
> paul
>
>

20560. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:19:25 UTC
From: Garey Barrell
Topic: 20499 Message: 20560

Michael -

When you hear hoofbeats, think horses, not zebras!!

Have you confirmed the cable from the wattmeter to the dummy load??? Check at the wattmeter end of that cable to see if you measure 50 ohms. This sure sounds like no antenna past the wattmeter..... You could also connect the cable from the amp to the wattmeter directly to
the dummy load.

I've never seen this happen, so not sure how it would present, but it sure appears that C43 or
C44 has opened. The doorknob caps are chosen for their ability to handle the very high RF currents at this point as much as their high voltage capabilities. I would remove those caps
and check them for capacitance.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael Engstrom wrote:
> L4B watt meter shows about 400 Watts forward and just a few watts
> reflected. The load capacitor is all tied together and there's an extra cap
> in there for 80 meters. Its functions fine mechanically.
> On Apr 29, 2014 8:52 PM, "Garey Barrell" <k4oah@...> wrote:
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>> OK. Well the measurements you have are exactly what you would see if the
>> LOAD capacitor was
>> stuck at maximum capacitance. Increasing the LOAD control reduces the Grid
>> current as the PLATE
>> current increases. Is it the same on more than one band?? Is the PLATE dip
>> very sharp??
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>> What does the L-4B Wattmeter show, Forward or Reflected?? Are all four
>> stators of the LOAD cap
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>> I guess an open Plate Blocking cap could present that way, I've never seen
>> one go. It can't be
>> a component 'shorting' the output as you have plenty of power to fry
>> anything across the

>> output. Are you using a dummy load? Or a known 'matched' antenna?
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>> Surplus Sales of Nebraska has a nice selection of doorknob caps. Also
>> Max-Gain Systems of
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>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Michael Engstrom wrote:
>>> Thanks Garey,
>>>
>>> Confirmed. Its clean, smooth turning and free of dust.
>>>
>>> At this point I'm thinking coupling to the tank circuit. All that
>> potential
>>> energy... just can't get there... I'm not sure where to get door knob
>> caps.
>>> First I need to dig in some old boxes.
>>>
>>> Mike. AA7WM
>>> On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@...> wrote:
>>>
>>>> Michael -
>>>>
>>>> Did you confirm that the LOAD capacitor is turning when you turn the
>> knob??
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>>
>>>>

20561. Re: [DrakeRadio] R4-B MOD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:29:27 UTC
From: Garey Barrell
Topic: 20526 Message: 20561

Carl -

The tap for the 2M & 6M converters goes into the antenna input of the receiver which is tuned to
20M for that purpose, not the first IF.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chgypsy@... wrote:
>
> hamcomm7@... writes:
>
> Ahhhh, ok, I hadnt thought about that. Well if you need to tap to that
> point then that is what Ill say it is. Its a neat installation and I dont see
> how it can hurt anything so Ill leave it alone. I was more curious than
> anything, thanks Carl.
> David - KX7C
> David I did forget that it was also the input for the 6 meter converter.
> You might like to go to _www.wb4hfn.com_ (http://www.wb4hfn.com) go to
> the Drake manuals and check out TC-2 & TC6
> Carl WD8NHK
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

20562. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:33:29 UTC
From: Garey Barrell
Topic: 206 Message: 20562

Scott -

The correct installation for the FS-4 is to connect the HOT lead to the 'common' wire that runs
to ALL the crystal sockets, and the shield connected to a ground lug nearby. See the manual,
Section 3.2.

Some have mistakenly connected it to a crystal plug and just plugged it in to any socket. This
will 'sorta' work, but the levels are reduced and spurious outputs can appear.

Sherwood used to make a relay box to disconnect the FS-4 when it was turned off, but it's no
longer available.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

whitebear1122@... wrote:
> Thanks Evan for your experience with the FS-4 . Agreed, if the FS-4 is plugged into an unused crystal socket, and the crystal switch is in the normal position when the FS-4 is not in use, wonder how the FS-4 can load down the oscillator. I saw the comment again last weekend. If I have time this weekend I'll wire up a cable and try out the FS-4. 73, Scott WA9WFA
>
> ----- Original Message -----
> From: "Evan Rolek" <k9sqg@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Sunday, April 27, 2014 2:25:40 PM
> Subject: Re: [DrakeRadio] FS-4 Question
>
> Scott,
>
>
> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>
>
>
> 73,

>
>
>
> Evan, K9SQG
>
>

20563. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:41:13 UTC
From: Damien Mannix
Topic: 19916 Message: 20563

Garey,

Thanks for the invite to join and the welcome. Enjoying the forum very much and learning a lot. Hope to be on air in a couple of weeks.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com
From: k4oah@...m
Date: Tue, 8 Apr 2014 12:14:05 -0400
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien -

Welcome. Don't worry, most folks on here are NOT experts, but that does NOT mean that they

can't contribute! Contributions take many forms, sometimes only loosely related to Drake radio

gear!! :-) I believe the only qualifying requirement is that you enjoy using Drake gear. It

doesn't hurt if you believe it is the BEST radio equipment, but is not a requirement.

Welcome 'back' to ham radio and the enjoyment of Drake!!

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs

<www.k4oah.com>

Damien Mannix wrote:

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

>

> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

>

> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

>

> In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

>

> So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

>

> Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

>

> 73 to all,

>

> Damien G3XER

>

[Non-text portions of this message have been removed]

20564. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:44:52 UTC
From: Damien Mannix
Topic: 19916 Message: 20564

Steve, thanks a lot for the welcome. You are right, it is a great group. Really enjoying it.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com
From: w1es1982@...
Date: Tue, 8 Apr 2014 12:16:12 -0400
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Welcome to the fold, Damien!

Noone is too inexperienced to take part here: we all learn from each other. It's a great group here and you will learn a lot!

73,

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On Apr 8, 2014, at 11:16 AM, Damien Mannix <damienmannix@...> wrote:

>

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

>

> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

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> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

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>

> So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

>

> Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

>

> 73 to all,

>

> Damien G3XER

>

>

> [Non-text portions of this message have been removed]

>

>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20565. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:48:08 UTC
From: Damien Mannix
Topic: 19916 Message: 20565

Joe, thanks for your 2 cents worth. Actually it is worth a lot more and much appreciated. Glad to be aboard.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com
From: w7rkn.7@...
Date: Tue, 8 Apr 2014 09:23:25 -0700
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Tossing my 2 cents worth in here...Our group is the only ham group I can

honestly say, I have never seen any attacks on...No egos here.....just

knowledgeable and helpful participants....A breath of fresh air, in a jungle

of ham groups that the testosterone levels push the competition on who can

discredit who's knowledge.

No question ever asked here, is considered too small to start a session, and

multiple views/ideas on solving an issue, are welcomed, rather than scorned.

Welcome aboard!

Joe Wolfe - W7RKN

----- Original Message -----

From: "Steve Wedge" <w1es1982@...>

Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

> Welcome to the fold, Damien!

>

> Noone is too inexperienced to take part here: we all learn from each

> other. It's a great group here and you will learn a lot!

>

> 73,

>

> Steve Wedge, W1ES/4

>

>

> Sent from my iPhone; please excuse any typographical malaprops.

>

>> On Apr 8, 2014, at 11:16 AM, Damien Mannix <damienmannix@...>

>> wrote:

>>

>> Hi all,

>>

>> Garey kindly invited me to join and I am very pleased to do so though a

>> little concerned that I have far too little knowledge to contribute much!

>> The welcome email suggests I introduce myself so here goes.

>>

>> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used

>> an early commercial SSB transmitter, the British made KW Viceroy, which

>> had an excellent reputation at the time and with which I was very happy.

>> (I wonder if any are still in use?) For receiving I had an immaculate

>> AR88D initially, absolutely marvellous but not designed for SSB of

>> course, followed by an Eddystone 840C which was not designed for SSB

>> either and then a mediocre Star receiver.

>>

>> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This

>> I did and could not have been more delighted with that receiver which was

>> light years ahead of anything I had used before. So a lifelong Drake fan

>> was born.

>>

>> In late 1975 I had to move city for job reasons, then I had to move again

>> and yet again. Marriage and bringing up a family occupied time of course

>> and I also started a small business which never really prospered but gave
>> me a good living as long as I worked 60 hours a week and travelled a lot
>> internationally. Ham radio was reduced to scanning Radcom (RSGB monthly
>> mag') when I had time. Suddenly, now retired, I realise 38 years have
>> gone and I do not know where! No idea!
>>
>> So I am now putting together a station and the main thing missing at the
>> moment is an antenna! So the most important thing comes last? Blame the
>> winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700
>> and even a Drake 7075 Mic'.
>>
>> Finally I should mention that I have been fortunate enough to make a few
>> contacts recently when on holiday in the Bahamas with the reciprocal call
>> of C6AXE. This confirmed my interest in the World's best hobby, not that
>> I really ever had any doubts. I am rag-chewer rather than a DX man and
>> hope to meet some of you on air.
>>
>> 73 to all,
>>
>> Damien G3XER
>>
>>
>> [Non-text portions of this message have been removed]
>>
>>
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>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links

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[Non-text portions of this message have been removed]

20566. tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 15:50:34 UTC
From: geoffrey mendelson
Topic: 20566 Message: 20566

Thanks to everyone for all the help with my previous questions.
Here's the situation as far as I can tell at this time:

1. The tuning gears are jammed. I can move the brass ring around the main knob and it changes frequency, so I am hoping the PTO is ok, and it's just someone forcing the knob too far to the low end and jamming it or the oil on the nylon gear problem similar to the SPR-4 I repaired.

2. AM and LSB seem to put something out. I can't tell as with the jammed VFO, I can't find a frequency I can receive to check it out. I have another way around it, but have not done so yet.

3. USB puts out 100 watts with no input. If I yell into the microphone the power out changes slightly. There was some sort of RTTY mod done to it, does this sound familar? I have not opened the bottom extension to see if anything is there.

4. The meter bulb was replaced with a soldered in smaller bulb stuck in the socket. I may remove it and go back to the original if I can.

Any advice?

Anyone know of someone who works on Drake rigs in Israel?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20567. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 16:08:58 UTC
From: <rochep@...>
Topic: 20484 Message: 20567

I think I got it. So if I tune for maximum output in a NON-NEUTRALIZED transmitter I will indeed have lots of power out, but the current flowing through the PA tubes is much higher than it should be because it is not resonant (i.e. the plate is not "dipped"). But if I tune for maximum output in this same NON-NEUTRALIZED transmitter and at the END of my "tune-up" I dip the plate I will find my plate current is dipped to a "reasonable" level, my power output might be a bit lower, but my efficiency is better (closer to 50%) and the tubes are happier?

I was just tuning for max output and CONTINUOUSLY increasing gain/altering PLATE for max smoke/increasing LOAD till not more output, etc...

Thanks for clearing it up!!!

p

[Non-text portions of this message have been removed]

20568. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 16:14:50 UTC
From: barcand@...
Topic: 20484 Message: 20568

The simplest thing to do is neutralize the finals, and then the dip and
max power out will coincide at the same place.

Bernie in ND
WDGMD

On Wed, April 30, 2014 11:08 am, rochep@... wrote:
> I think I got it. So if I tune for maximum output in a NON-NEUTRALIZED
> transmitter I will indeed have lots of power out, but the current flowing
> through the PA tubes is much higher than it should be because it is not
> resonant (i.e. the plate is not "dipped"). But if I tune for maximum
> output in this same NON-NEUTRALIZED transmitter and at the END of my
> "tune-up" I dip the plate I will find my plate current is dipped to a
> "reasonable" level, my power output might be a bit lower, but my
> efficiency is better (closer to 50%) and the tubes are happier?
>
> I was just tuning for max output and CONTINUOUSLY increasing gain/altering
> PLATE for max smoke/increasing LOAD till not more output, etc...
>
> Thanks for clearing it up!!!
>
> p
>
> [Non-text portions of this message have been removed]
>
>

20569. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 16:30:01 UTC
From: Michael Engstrom
Topic: 20499 Message: 20569

Garey-

Since there are two doorknob caps in parallel, I pulled one out at a time leaving the other one in place to check for any change ... the result: No change. I wouldn't think both would fail at the same time.

It seems like I'm missing something obvious.

I use the cantenna, connecting cables and an external watt meter frequently with various amplifiers, don't suspect anything there.
Thank you for your ideas.

I'll keep plugging away.
On Apr 30, 2014 8:19 AM, "Garey Barrell" <k4oah@...> wrote:

>
>
> Michael -
>
> When you hear hoofbeats, think horses, not zebras!!
>
> Have you confirmed the cable from the wattmeter to the dummy load??? Check
> at the wattmeter
> end of that cable to see if you measure 50 ohms. This sure sounds like no
> antenna past the
> wattmeter..... You could also connect the cable from the amp to the
> wattmeter directly to
> the dummy load.
>
> I've never seen this happen, so not sure how it would present, but it sure
> appears that C43 or
> C44 has opened. The doorknob caps are chosen for their ability to handle
> the very high RF
> currents at this point as much as their high voltage capabilities. I would
> remove those caps
> and check them for capacitance.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
> > L4B watt meter shows about 400 Watts forward and just a few watts

> > reflected. The load capacitor is all tied together and there's an extra
> cap
> > in there for 80 meters. Its functions fine mechanically.
> > On Apr 29, 2014 8:52 PM, "Garey Barrell" <k4oah@...> wrote:
> >
> >>
> >> OK. Well the measurements you have are exactly what you would see if the
> >> LOAD capacitor was
> >> stuck at maximum capacitance. Increasing the LOAD control reduces the
> Grid
> >> current as the PLATE
> >> current increases. Is it the same on more than one band?? Is the PLATE
> dip
> >> very sharp??
> >>
> >> What does the L-4B Wattmeter show, Forward or Reflected?? Are all four
> >> stators of the LOAD cap
> >> tied together and to the 700 pF 'extra' cap on 80M?
> >>
> >> I guess an open Plate Blocking cap could present that way, I've never
> seen
> >> one go. It can't be
> >> a component 'shorting' the output as you have plenty of power to fry
> >> anything across the
> >> output. Are you using a dummy load? Or a known 'matched' antenna?
> >>
> >> Surplus Sales of Nebraska has a nice selection of doorknob caps. Also
> >> Max-Gain Systems of
> >> Marietta, GA.
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> Michael Engstrom wrote:
> >>> Thanks Garey,
> >>>
> >>> Confirmed. Its clean, smooth turning and free of dust.
> >>>
> >>> At this point I'm thinking coupling to the tank circuit. All that
> >> potential
> >>> energy... just can't get there... I'm not sure where to get door knob
> >> caps.
> >>> First I need to dig in some old boxes.
> >>>
> >>> Mike. AA7WM
> >>> On Apr 29, 2014 6:43 PM, "Garey Barrell" <k4oah@mindspring.com> wrote:

> >>>
> >>>> Michael -
> >>>>
> >>>> Did you confirm that the LOAD capacitor is turning when you turn the
> >> knob??
> >>>> 73, Garey - K4OAH
> >>>> Glen Allen, VA
> >>>>
> >>>>
>
>
>

[Non-text portions of this message have been removed]

20570. Re: [DrakeRadio] tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 17:05:01 UTC
From: Garey Barrell
Topic: 20566 Message: 20570

The PTO is fairly simple. The 'silver' shaft turns the lead screw in the gearbox, directly. There is a threaded follower on the lead screw that moves back and forth as the lead screw is
rotated. The follower is the piece with the spring from its top to the shield can. If the shaft is turned too far, the follower can be jammed against the front or back wall of the gearbox. If it's jammed against the back wall, turn the silver shaft ccw to release it. If it's to the front, it can actually get off the threaded area and wedge against the front wall of
the gearbox.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

geoffrey mendelson wrote:
> Thanks to everyone for all the help with my previous questions.
> Here's the situation as far as I can tell at this time:
>
> 1. The tuning gears are jammed. I can move the brass ring around the
> main knob and it changes frequency, so I am hoping the PTO is ok, and
> it's just someone forcing the knob too far to the low end and jamming it
> or the oil on the nylon gear problem similar to the SPR-4 I repaired.
>
> 2. AM and LSB seem to put something out. I can't tell as with the
> jammed VFO, I can't find a frequency I can receive to check it out. I
> have another way around it, but have not done so yet.
>
> 3. USB puts out 100 watts with no input. If I yell into the microphone
> the power out changes slightly. There was some sort of RTTY mod done to
> it, does this sound familar? I have not opened the bottom extension to
> see if anything is there.
>
> 4. The meter bulb was replaced with a soldered in smaller bulb stuck in
> the socket. I may remove it and go back to the original if I can.
>
> Any advice?
>
> Anyone know of someone who works on Drake rigs in Israel?
>
> TIA,
>
> Geoff.
>

20571. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 17:10:09 UTC
From: Garey Barrell
Topic: 20484 Message: 20571

The 'extra' power is often spurious output generated by the PA oscillating on its own, and almost certainly NOT on the frequency you think it is!!

The most important thing is that the PLATE is DIPPED, as this indicates resonance, meaning that
the power is being transferred from the PA tube plates to the load. ANY increase in power 'away' from the dip is suspect and NOT good for PA tubes.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> I think I got it. So if I tune for maximum output in a NON-NEUTRALIZED transmitter I will indeed have lots of power out, but the current flowing through the PA tubes is much higher than it should be because it is not resonant (i.e. the plate is not "dipped"). But if I tune for maximum output in this same NON-NEUTRALIZED transmitter and at the END of my "tune-up" I dip the plate I will find my plate current is dipped to a "reasonable" level, my power output might be a bit lower, but my efficiency is better (closer to 50%) and the tubes are happier?
>
> I was just tuning for max output and CONTINUOUSLY increasing gain/altering PLATE for max smoke/increasing LOAD till not more output, etc...
>
> Thanks for clearing it up!!!
>
>

20572. Re: [DrakeRadio] tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 17:19:39 UTC
From: geoffrey mendelson
Topic: 20566 Message: 20572

On 4/30/2014 8:05 PM, Garey Barrell wrote:
>
> The PTO is fairly simple. The 'silver' shaft turns the lead screw in
> the gearbox, directly.
> There is a threaded follower on the lead screw that moves back and
> forth as the lead screw is
> rotated. The follower is the piece with the spring from its top to the
> shield can. If the
> shaft is turned too far, the follower can be jammed against the front
> or back wall of the
> gearbox. If it's jammed against the back wall, turn the silver shaft
> ccw to release it. If
> it's to the front, it can actually get off the threaded area and wedge
> against the front wall of
> the gearbox.
>

Thanks, I appreciate it.

Do you happen to remember if it has been turned all the way to the low
end, which direction it is jammed?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20573. RV-75 Cable Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 17:37:18 UTC
From: Wayne Bethoney
Topic: 20573 Message: 20573

I have a RV-75 question: The two coax cables inside my RV-75 are reversed from the digital board to the analog board. That is on the analog board the center conductor on the coax goes to ground where as on the digital board it does not. The schematic shows it that way. Was wondering why? My VFO drifts. I checked out the digital board via the manual alignment and it is fine. Any help is appreciated.

Thanks Wayne/WC1C

[Non-text portions of this message have been removed]

20574. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:02:52 UTC
From: Garey Barrell
Topic: 20499 Message: 20574

Michael -

OK. It sure acts like there is no load past the wattmeter, except for the minimal reflected power.

I agree that it's unlikely that both caps would fail, and a single cap would work fine on the
higher bands, especially.

Does it change on different bands??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

Michael Engstrom wrote:
> Garey-
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> change. I wouldn't think both would fail at the same time.
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> I use the cantenna, connecting cables and an external watt meter frequently
> with various amplifiers, don't suspect anything there.
> Thank you for your ideas.
>
> I'll keep plugging away.
> On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...> wrote:
>
>> Michael -
>>
>> When you hear hoofbeats, think horses, not zebras!!
>>
>> Have you confirmed the cable from the wattmeter to the dummy load??? Check
>> at the wattmeter
>> end of that cable to see if you measure 50 ohms. This sure sounds like no
>> antenna past the
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>> wattmeter directly to
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>>> L4B watt meter shows about 400 Watts forward and just a few watts
>>> reflected. The load capacitor is all tied together and there's an extra
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>>> On Apr 29, 2014 8:52 PM, "Garey Barrell"<k4oah@...> wrote:
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>>>> stuck at maximum capacitance. Increasing the LOAD control reduces the
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>>>> What does the L-4B Wattmeter show, Forward or Reflected?? Are all four
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20575. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:18:58 UTC
From: Michael Engstrom
Topic: 20499 Message: 20575

Garey -

Wanted to let you know that the 400 Watts the L4B amplifier puts out warms up the oil in the Heath Kit Cantenna.

I get the same results on all bands unless the results are so subtle that I have not noticed them.

1. I get a nice, rather sharp dip in the plate current.

2. Load capacitor all the way counter cockwise for maximum RF output.

3. Just 300 - 400 watts.

On Apr 30, 2014 11:02 AM, "Garey Barrell" <k4oah@...> wrote:

>
>
> Michael -
>
> OK. It sure acts like there is no load past the wattmeter, except for the
> minimal reflected power.
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> I agree that it's unlikely that both caps would fail, and a single cap
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> > On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...> wrote:
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> >

>
>

[Non-text portions of this message have been removed]

20576. Re: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:19:57 UTC
From: Robert Logan
Topic: 19916 Message: 20576

Damien, this is the best group I've ever been in, bar none. Learning goes two-way here and all are good guys. Welcome to the group.

Oh, and don't be intimidated by the expertise generally shown. I've asked many a beginner's question and never been embarrassed by the responses to me. All helpful, all courteous.

73, Bob NZ5A

Sent from my iPhone

On Apr 30, 2014, at 10:41 AM, Damien Mannix <damienmannix@...> wrote:

Garey,

Thanks for the invite to join and the welcome. Enjoying the forum very much and learning a lot. Hope to be on air in a couple of weeks.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com
From: k4oah@...
Date: Tue, 8 Apr 2014 12:14:05 -0400
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien -

Welcome. Don't worry, most folks on here are NOT experts, but that does NOT mean that they

can't contribute! Contributions take many forms, sometimes only loosely related to Drake radio

gear!! :-) I believe the only qualifying requirement is that you enjoy using Drake gear. It

doesn't hurt if you believe it is the BEST radio equipment, but is not a requirement.

Welcome 'back' to ham radio and the enjoyment of Drake!!

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs

<www.k4oah.com>

Damien Mannix wrote:

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

>

> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

>

> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

>

> In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

>

> So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

>

> Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

>

> 73 to all,

>

> Damien G3XER

>

[Non-text portions of this message have been removed]

Yahoo Groups Links

20577. Re: [DrakeRadio] tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:23:04 UTC
From: Garey Barrell
Topic: 20566 Message: 20577

All the way to the low end of the band puts the follower up against the front of the gearbox.

You can get it 'back on the rails' by holding it at the end of the threaded portion of the lead
screw to get it started.

The DR-7 board is going to have to be removed to do much of anything with the PTO. It comes out
fairly easily by disconnecting all the connectors (photos and/or drawings first as the connector
are not keyed or marked) and lifting straight up. There is a row of pins down to the parent board along the left-rear edge, another at right angles to the left edge about halfway to the
front, and three more over near the middle. The radio will NOT work with the DR-7 out unless you
have the jumper board (a part of the board extender kit). You have to be careful replacing the
DR-7 to ensure that the pins all line up with the sockets as they are not easily visible. Verify that they are straight, and check for cracked solder where they solder to the DR-7 once
you have it back in. There is much information in the list archives regarding this. The Search box at the top of the main list page searches 'conversations' (messages) very quickly.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

geoffrey mendelson wrote:
> On 4/30/2014 8:05 PM, Garey Barrell wrote:
>> The PTO is fairly simple. The 'silver' shaft turns the lead screw in
>> the gearbox, directly.
>> There is a threaded follower on the lead screw that moves back and
>> forth as the lead screw is
>> rotated. The follower is the piece with the spring from its top to the
>> shield can. If the
>> shaft is turned too far, the follower can be jammed against the front
>> or back wall of the
>> gearbox. If it's jammed against the back wall, turn the silver shaft
>> ccw to release it. If
>> it's to the front, it can actually get off the threaded area and wedge
>> against the front wall of

>> the gearbox.
>>
> Thanks, I appreciate it.
>
> Do you happen to remember if it has been turned all the way to the low
> end, which direction it is jammed?
>
> TIA,
>
> Geoff.
>

20578. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:30:08 UTC
From: Garey Barrell
Topic: 20499 Message: 20578

Really strange behavior... Sounds exactly like what happens if the LOAD control is fully CCW,
and reducing the LOAD capacitance should cause the PLATE current to increase. Just what I would
expect if the LOAD variable was NOT turning.

I'm assuming the PLATE current you are seeing is consistent with the amount of output power you
are seeing.?? About 400 mA in CW??

73, Garey - K4OAH
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20579. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 18:45:38 UTC
From: Michael Engstrom
Topic: 20499 Message: 20579

Yes, except the grid current is way too high for such a low output.

230 ma grid current.
250 ma plate current
2500 plate voltage
625 watt input
About 350 watts output
56% efficiency

The answer must be resting somewhere within the excessive grid current reading.
On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...> wrote:

>
>
> Really strange behavior... Sounds exactly like what happens if the LOAD
> control is fully CCW,
> and reducing the LOAD capacitance should cause the PLATE current to
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> >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<k4oah@...>
> >> wrote:
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>

>

[Non-text portions of this message have been removed]

20580. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:07:40 UTC
From: vacuuminded2@...
Topic: 20499 Message: 20580

Are you sure someone didn't attempt to modify that amp for class B or C? If successful one would expect more power out, but this might explain the low drive required (20w you said?) to obtain the specified grid current.

Just a thought

Chris

Sent from my outdated iPhone wireless thingy

On Apr 30, 2014, at 1:45 PM, Michael Engstrom <michael.engstrom.73@...> wrote:

> Yes, except the grid current is way too high for such a low output.
>
> 230 ma grid current.
> 250 ma plate current
> 2500 plate voltage
> 625 watt input
> About 350 watts output
> 56% efficiency
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> The answer must be resting somewhere within the excessive grid current
> reading.
> On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...> wrote:
>
> >
> >
> > Really strange behavior... Sounds exactly like what happens if the LOAD
> > control is fully CCW,
> > and reducing the LOAD capacitance should cause the PLATE current to
> > increase. Just what I would
> > expect if the LOAD variable was NOT turning.
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> > I'm assuming the PLATE current you are seeing is consistent with the
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> > >>> I use the cantenna, connecting cables and an external watt meter

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> > >>> Thank you for your ideas.
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> > >>> I'll keep plugging away.
> > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...> wrote:
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> [Non-text portions of this message have been removed]
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20581. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:16:16 UTC
From: Paul Dulaff
Topic: 20499 Message: 20581

Mike

One suggestion would be to check the setting of R16, the grid current meter calibration pot. If this pot or adjacent circuit has a fault, the extrapolated grid current reading will be in error and could possibly read higher than actual. It appears from the schematic that the L4B determines grid current indirectly.

The L4B manual has a section (section 5) that describes how to check the calibration of the grid and plate meters and setting of R16.

Best 73's

Paul - WB2NMI

----- Original Message -----
From: Michael Engstrom <michael.engstrom.73@...>
To: DrakeRadio@yahoogroups.com
Sent: Wed, 30 Apr 2014 14:45:38 -0400 (EDT)
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Yes, except the grid current is way too high for such a low output.

230 ma grid current.

250 ma plate current

2500 plate voltage

625 watt input

About 350 watts output

56% efficiency

The answer must be resting somewhere within the excessive grid current

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[Non-text portions of this message have been removed]

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20582. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:26:41 UTC
From: <toptyp19@...>
Topic: 20499 Message: 20582

I've been following this thread for a couple of days.
Personally, I'd be really suspicious of those "new" tubes.
Where did you get them? Have you tested them on a
good mutual conductance tester? Do you have a decent
pair of "old" tubes to compare just to see if you get a
sharp dip? Also. Are the "new" tubes NOS US made
or are they foreign??
Just a thought.

Joe-WA9LAE

[Non-text portions of this message have been removed]

20583. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:27:12 UTC
From: Michael Engstrom
Topic: 20499 Message: 20583

Chris -

Thank you for your input Chris.
The only modifications this amplifier has is the surge protector and soft key mods from Harbach electronics. Removing the surge protector produced no change in performance.
I don't have a schematic in front of me so I'm going from memory at this point:

When the amplifier is keyed, the cathodes become common to the grounded grids through the T/R relay and a 1 ohm 10 watt resistor, and the grids are allowed to conduct with adequate drive. When not keyed the cathodes receive +120 volts from the T/R relay and power supply effectively cutting off all plate and grid current .
On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:

>
>
> Are you sure someone didn't attempt to modify that amp for class B or C?
> If successful one would expect more power out, but this might explain the
> low drive required (20w you said?) to obtain the specified grid current.
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> > [Non-text portions of this message have been removed]
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20584. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:29:28 UTC
From: Garey Barrell
Topic: 20499 Message: 20584

The excessive Grid current is a result of power not being coupled out of the amp. High Grid current is also a direct symptom of a LOAD capacitor at full capacitance. The Drive power is
just going through the Cathode to the Grid to ground instead of going through to the output.

I would certainly stay on CW rather than SSB to minimize stress on the entire amp/power supply
system. No reason for 2500 V!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Michael Engstrom wrote:
> Yes, except the grid current is way too high for such a low output.
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> 230 ma grid current.
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> 625 watt input
> About 350 watts output
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> On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...> wrote:
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20585. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:29:45 UTC
From: Michael Engstrom
Topic: 20499 Message: 20585

Thank you Joe, yes, before I put those tubes in they were functioning at
1500 watts no problem in a Henry 3K-A amplifier
On Apr 30, 2014 12:26 PM, <toptyp19@...> wrote:

>
>
> I've been following this thread for a couple of days.
> Personally, I'd be really suspicious of those "new" tubes.
> Where did you get them? Have you tested them on a
> good mutual conductance tester? Do you have a decent
> pair of "old" tubes to compare just to see if you get a
> sharp dip? Also. Are the "new" tubes NOS US made
> or are they foreign??
> Just a thought.
>
> Joe-WA9LAE
>
> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20586. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:35:52 UTC
From: <toptyp19@...>
Topic: 20499 Message: 20586

FB Michael-

Guess I'll be scratching my head along with
everyone else!

GL, Joe.

[Non-text portions of this message have been removed]

20587. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 19:49:52 UTC
From: Michael Engstrom
Topic: 20499 Message: 20587

Point well taken Garey.

The L4B appears to be acting as an amplifier that doesn't have high anode voltage. But it does have high voltage. Without high voltage there's no Amplification Factor and the grid current can go excessive even with small amounts of drive... The electron cloud is simply circulating around the grid/cathode input circuitry. (the input SWR is flat as read on a Yaesu FT1000D)

The higher the anode voltage the Less the grid current reading.

I really don't have any reason to suspect that the amplifiers high voltage meter reading is wrong, but I'm thinking of purchasing a high-voltage probe for my volt meter to be sure. No, wait a minute, the dummy load is warm... there is high voltage!

I'm starting to think there may be something wrong with the loading capacitor. How in the heck does that go bad?!
On Apr 30, 2014 12:29 PM, "Garey Barrell" <k4oah@...> wrote:

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> > [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

20588. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 20:06:10 UTC
From: Garey Barrell
Topic: 20499 Message: 20588

Just reduce the drive. I seriously doubt that the HV is far enough off to matter. The SSB just
further stresses 'everything' in the amp and PS and serves no purpose at this point.

Take a look at the RF chokes on the Grids. They should have three distinct winding sections.
If it's all one winding they may have 'collapsed' and are no longer chokes. We're grasping at
straws!! :-)

73, Garey - K4OAH
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>>>>>>>>>> Mike. AA7WM
>>>>>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<k4oah@...>
>>>>>> wrote:
>>>>>>>>>>> Michael -
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>>>>>>>>>>>> Did you confirm that the LOAD capacitor is turning when you turn
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20589. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 20:31:57 UTC
From: Michael Engstrom
Topic: 20499 Message: 20589

I checked each RF Choke early on and reported that they looked good... no hot or burn spots. They looked fresh. I will check them again Garey with the new information you provided. Thank you for your input!

There is no way this amplifier is not going to get repaired!!! That's a double negative... it will be repaired!

The answer remains hidden in the excessive grid current. The plate portion of the tank circuit resonates and the plate current dipps sharply as expected. Is it the loading section of the pi-net that is failing to deliver the circulating RF currents to the load. Like it ain't loading up man!
On Apr 30, 2014 1:06 PM, "Garey Barrell" <k4oah@mindspring.com> wrote:

>
>
> Just reduce the drive. I seriously doubt that the HV is far enough off to
> matter. The SSB just
> further stresses 'everything' in the amp and PS and serves no purpose at
> this point.
>
> Take a look at the RF chokes on the Grids. They should have three distinct
> winding sections.
> If it's all one winding they may have 'collapsed' and are no longer
> chokes. We're grasping at
> straws!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
> > Point well taken Garey.
> >
> > The L4B appears to be acting as an amplifier that doesn't have high anode
> > voltage. But it does have high voltage. Without high voltage there's no
> > Amplification Factor and the grid current can go excessive even with
> small
> > amounts of drive... The electron cloud is simply circulating around the
> > grid/cathode input circuitry. (the input SWR is flat as read on a Yaesu
> > FT1000D)
> >
> > The higher the anode voltage the Less the grid current reading.

> >
> > I really don't have any reason to suspect that the amplifiers high
> voltage
> > meter reading is wrong, but I'm thinking of purchasing a high-voltage
> probe
> > for my volt meter to be sure. No, wait a minute, the dummy load is
> warm...
> > there is high voltage!
> >
> > I'm starting to think there may be something wrong with the loading
> > capacitor. How in the heck does that go bad?!
> > On Apr 30, 2014 12:29 PM, "Garey Barrell" <k4oah@...> wrote:
> >
> >>
> >> The excessive Grid current is a result of power not being coupled out of
> >> the amp. High Grid
> >> current is also a direct symptom of a LOAD capacitor at full
> capacitance.
> >> The Drive power is
> >> just going through the Cathode to the Grid to ground instead of going
> >> through to the output.
> >>
> >> I would certainly stay on CW rather than SSB to minimize stress on the
> >> entire amp/power supply
> >> system. No reason for 2500 V!
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
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> >> Michael Engstrom wrote:
> >>> Yes, except the grid current is way too high for such a low output.
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> >>> 230 ma grid current.
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> >>> About 350 watts output
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> >>> On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
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> >>>> Really strange behavior... Sounds exactly like what happens if the
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> >>>>>>> I use the cantenna, connecting cables and an external watt meter
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[Non-text portions of this message have been removed]

20590. Re: [DrakeRadio] tr7 pto item

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 21:40:41 UTC
From: Chgypsy@...
Topic: 20590 Message: 20590

, geoffreymendelson@... writes:

Do you happen to remember if it has been turned all the way to the low
end, which direction it is jammed? Geoff.
Geoff, As I look at one it would have been turned all the way to the
right. Garey already said the DR7 board has to come off....you can see what
happened at that point. Carl wd8nhk

[Non-text portions of this message have been removed]

20591. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 22:52:02 UTC
From: Evan Rolek
Topic: 20499 Message: 20591

I believe "cathodes" in this instance means filament. The 3-500 series is not indirectly heated and thus has no cathode per se.

-----Original Message-----
From: Michael Engstrom <michael.engstrom.73@...>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, Apr 30, 2014 3:27 pm
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Chris -

Thank you for your input Chris.
The only modifications this amplifier has is the surge protector and soft key mods from Harbach electronics. Removing the surge protector produced no change in performance.
I don't have a schematic in front of me so I'm going from memory at this point:

When the amplifier is keyed, the cathodes become common to the grounded grids through the T/R relay and a 1 ohm 10 watt resistor, and the grids are allowed to conduct with adequate drive. When not keyed the cathodes receive +120 volts from the T/R relay and power supply effectively cutting off all plate and grid current .
On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:

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> Are you sure someone didn't attempt to modify that amp for class B or C?
> If successful one would expect more power out, but this might explain the
> low drive required (20w you said?) to obtain the specified grid current.
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> Just a thought
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> Chris
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> Sent from my outdated iPhone wireless thingy
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> On Apr 30, 2014, at 1:45 PM, Michael Engstrom <
> michael.engstrom.73@...> wrote:
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> > Yes, except the grid current is way too high for such a low output.
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> > 230 ma grid current.
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20592. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 22:58:05 UTC
From: Michael Engstrom
Topic: 20499 Message: 20592

Copy that. Yes filaments.

Thank you for your thoughts.
On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:

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> not indirectly heated and thus has no cathode per se.
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> > > > > I get the same results on all bands unless the results are so
> subtle
> > > > that I
> > > > > have not noticed them.
> > > > >
> > > > > 1. I get a nice, rather sharp dip in the plate current.

> > > > >
> > > > > 2. Load capacitor all the way counter cockwise for maximum RF
> output.
> > > > >
> > > > > 3. Just 300 - 400 watts.
> > > > >
> > > > >
> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <k4oah@...>
> > wrote:
> > > > >
> > > > >>
> > > > >> Michael -
> > > > >>
> > > > >> OK. It sure acts like there is no load past the wattmeter, except
> > for
> > > > the
> > > > >> minimal reflected power.
> > > > >>
> > > > >> I agree that it's unlikely that both caps would fail, and a single
> > cap
> > > > >> would work fine on the
> > > > >> higher bands, especially.
> > > > >>
> > > > >> Does it change on different bands??
> > > > >>
> > > > >> 73, Garey - K4OAH
> > > > >> Glen Allen, VA
> > > > >>
> > > > >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > >> and TR-4/C Service Supplement CDs
> > > > >> <www.k4oah.com>;
> > > > >>
> > > > >> Michael Engstrom wrote:
> > > > >>> Garey-
> > > > >>>
> > > > >>> Since there are two doorknob caps in parallel, I pulled one out
> > at
> > > > a
> > > > time
> > > > >>> leaving the other one in place to check for any change ... the
> > > result:
> > > > No
> > > > >>> change. I wouldn't think both would fail at the same time.
> > > > >>>
> > > > >>> It seems like I'm missing something obvious.
> > > > >>>
> > > > >>> I use the cantenna, connecting cables and an external watt meter
> > > > >> frequently
> > > > >>> with various amplifiers, don't suspect anything there.
> > > > >>> Thank you for your ideas.

> > > > >>>
> > > > >>> I'll keep plugging away.
> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...>
> > wrote:
> > > > >>>
> > > > >>>> Michael -
> > > > >>>>
> > > > >>>> When you hear hoofbeats, think horses, not zebras!!
> > > > >>>>
> > > > >>>> Have you confirmed the cable from the wattmeter to the dummy
> > load???
> > > > >> Check
> > > > >>>> at the wattmeter
> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
> sounds
> > like
> > > > >> no
> > > > >>>> antenna past the
> > > > >>>> wattmeter..... You could also connect the cable from the amp
> > to
> > > > the
> > > > >>>> wattmeter directly to
> > > > >>>> the dummy load.
> > > > >>>>
> > > > >>>> I've never seen this happen, so not sure how it would present,
> > but it
> > > > >> sure
> > > > >>>> appears that C43 or
> > > > >>>> C44 has opened. The doorknob caps are chosen for their ability
> to
> > > > handle
> > > > >>>> the very high RF
> > > > >>>> currents at this point as much as their high voltage
> > capabilities. I
> > > > >> would
> > > > >>>> remove those caps
> > > > >>>> and check them for capacitance.
> > > > >>>>
> > > > >>>> 73, Garey - K4OAH
> > > > >>>> Glen Allen, VA
> > > > >>>>
> > > > >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > >>>> and TR-4/C Service Supplement CDs
> > > > >>>> <www.k4oah.com>;
> > > > >>>>
> > > > >>>> Michael Engstrom wrote:
> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a few
> watts
> > > > >>>>> reflected. The load capacitor is all tied together and there's
> an

> > > > extra
> > > > >>>> cap
> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey Barrell"<k4oah@...>
> > > > wrote:
> > > > >>>>>
> > > > >>>>>> OK. Well the measurements you have are exactly what you would
> > see if
> > > > >> the
> > > > >>>>>> LOAD capacitor was
> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD control
> > reduces
> > > > the
> > > > >>>> Grid
> > > > >>>>>> current as the PLATE
> > > > >>>>>> current increases. Is it the same on more than one band?? Is
> the
> > > > PLATE
> > > > >>>> dip
> > > > >>>>>> very sharp??
> > > > >>>>>>
> > > > >>>>>> What does the L-4B Wattmeter show, Forward or Reflected?? Are
> > all
> > > > four
> > > > >>>>>> stators of the LOAD cap
> > > > >>>>>> tied together and to the 700 pF 'extra' cap on 80M?
> > > > >>>>>>
> > > > >>>>>> I guess an open Plate Blocking cap could present that way,
> I've
> > > > never
> > > > >>>> seen
> > > > >>>>>> one go. It can't be
> > > > >>>>>> a component 'shorting' the output as you have plenty of power
> > to fry
> > > > >>>>>> anything across the
> > > > >>>>>> output. Are you using a dummy load? Or a known 'matched'
> > antenna?
> > > > >>>>>>
> > > > >>>>>> Surplus Sales of Nebraska has a nice selection of doorknob
> caps.
> > > > Also
> > > > >>>>>> Max-Gain Systems of
> > > > >>>>>> Marietta, GA.
> > > > >>>>>>
> > > > >>>>>> 73, Garey - K4OAH
> > > > >>>>>> Glen Allen, VA
> > > > >>>>>>
> > > > >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > >>>>>> and TR-4/C Service Supplement CDs
> > > > >>>>>> <www.k4oah.com>;

> > > > >>>>>>
> > > > >>>>>> Michael Engstrom wrote:
> > > > >>>>>>> Thanks Garey,
> > > > >>>>>>>
> > > > >>>>>>> Confirmed. Its clean, smooth turning and free of dust.
> > > > >>>>>>>
> > > > >>>>>>> At this point I'm thinking coupling to the tank circuit. All
> > that
> > > > >>>>>> potential
> > > > >>>>>>> energy... just can't get there... I'm not sure where to get
> > door
> > > > > knob
> > > > >>>>>> caps.
> > > > >>>>>>> First I need to dig in some old boxes.
> > > > >>>>>>>
> > > > >>>>>>> Mike. AA7WM
> > > > >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<
> k4oah@...>
> > > > > >> wrote:
> > > > >>>>>>>> Michael -
> > > > >>>>>>>>
> > > > >>>>>>>> Did you confirm that the LOAD capacitor is turning when you
> > turn
> > > > > the
> > > > >>>>>> knob??
> > > > >>>>>>>> 73, Garey - K4OAH
> > > > >>>>>>>> Glen Allen, VA
> > > > >>>>>>>>
> > > > >>>>>>>>
> > > > >
> > > > >
> > > > >
> > > >
> > > > [Non-text portions of this message have been removed]
> > > >
> > > >
> > >
> > > [Non-text portions of this message have been removed]
> > >
> > >
> > >
> > >
> > [Non-text portions of this message have been removed]
> >
> > [Non-text portions of this message have been removed]
> >
> >
> >

[Non-text portions of this message have been removed]

20593. Re: [DrakeRadio] tr7 pto item

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 22:59:49 UTC
From: David Nichols
Topic: 20590 Message: 20593

From: "Chgypsy@..." <Chgypsy@aol.com>
To: DrakeRadio@yahoogroups.com
Cc: geoffreymendelson@...
Sent: Wednesday, April 30, 2014 2:40 PM
Subject: Re: [DrakeRadio] tr7 pto item

, geoffreymendelson@... writes:

Do you happen to remember if it has been turned all the way to the low
end, which direction it is jammed? Geoff.
Geoff, As I look at one it would have been turned all the way to the
right. Garey already said the DR7 board has to come off....you can see what
happened at that point. Carl wd8nhk

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20594. TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-04-30 23:22:55 UTC
From: David Nichols
Topic: 20594 Message: 20594

I believe I have it figured out now. The calibrator is working fine on the other bands. The band switch is clean and looking like its working as it should. The calibrator wire is in the proper location and not touching anything.

Then I found the calibrator signal on 40 meters coming in very well. The problem is, I was looking for it at 7.300 and found it at 7.335. I thought about this for a minute and then I plugged it into the service monitor. I hadnt checked it out for frequency settings yet. Well, 40 meters appears to be off by .165 kc's. Not because of where I hear the calibrator signal but because of the signal on the scope. The spectrum analyzer put it out in right field!

I set the analyzer to 7.200 and when I get the signal lined up at 7.2 my dial scale is sitting on 7.035 and I do receive a good strong calibrator signal there. I dont know of any way to adjust the frequency so Im guessing I need a new 40 meter crystal. I just dont want to do the math when Im working 40 meters.. hi hi. I found 20 meters off a few kc's too but just a couple. The 40 meter crystal is on a walk about. hi hi

David - KX7C

[Non-text portions of this message have been removed]

20595. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 00:14:50 UTC
From: Steve Wedge
Topic: 20594 Message: 20595

Sounds like a bad crystal to me.

Had a TR-3 that had one that was off by about 20 kc. It happens.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: David Nichols
Sent: Wednesday, April 30, 2014 7:22 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

I believe I have it figured out now. The calibrator is working fine on the other bands. The band switch is clean and looking like its working as it should. The calibrator wire is in the proper location and not touching anything.

Then I found the calibrator signal on 40 meters coming in very well. The problem is, I was looking for it at 7.300 and found it at 7.335. I thought about this for a minute and then I plugged it into the service monitor. I hadnt checked it out for frequency settings yet. Well, 40 meters appears to be off by .165 kc's. Not because of where I hear the calibrator signal but because of the signal on the scope. The spectrum analyzer put it out in right field!

I set the analyzer to 7.200 and when I get the signal lined up at 7.2 my dial scale is sitting on 7.035 and I do receive a good strong calibrator signal there. I dont know of any way to adjust the frequency so Im guessing I need a new 40 meter crystal. I just dont want to do the math when Im working 40 meters.. hi hi. I found 20 meters off a few kc's too but just a couple. The 40 meter crystal is on a walk about. hi hi

David - KX7C

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20596. Re: [DrakeRadio] tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 00:44:21 UTC
From: Jim Shorney
Topic: 20566 Message: 20596

The easiest way to both pull the DR-7 and work on the PTO is to pull the bandswitch shaft back and hinge the front panel assembly down as described in the service manual. You don't need to pull the shaft all the way out, just far enough to clear the hole in the front panel.

73

-Jim
NU0C

On Wed, 30 Apr 2014 14:23:04 -0400, Garey Barrell wrote:

>The DR-7 board is going to have to be removed to do much of anything with the PTO. It comes out
>fairly easily by disconnecting all the connectors (photos and/or drawings first as the connector
>are not keyed or marked) and lifting straight up.

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20597. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 00:51:22 UTC
From: Garey Barrell
Topic: 20499 Message: 20597

Michael -

Something was pointed out to me that I had forgotten. The BAND switch is of course the input
wafers and the output wafers. They are 'ganged' by the bead chain. They can get out of sync if
the chain has been broken and repaired incorrectly, or in some cases just slipped.. Have you
verified that the input and output wafers are on the same band???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20598. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 00:59:22 UTC
From: Steve VK2SJA
Topic: 20594 Message: 20598

> Sounds like a bad crystal to me.
>
> Had a TR-3 that had one that was off by about 20 kc. It happens.
>
> 73,
>

A question then:-

At what point do we declare a crystal as being too far off frequency and requiring replacement? Which I guess is the same as asking "What is the typical dial error seen between bands"? And is/was there a factory specification or tolerance value for this when new?

On my TR-4C I have the following (using 3.5 as the reference):-

3.5 }
7.0 } All within 1KHz
14.0 }

21.0 ~= 8KHz out
28.0 ~= 15KHz out
28.5 ~= 15KHz out
29.0 ~= 17.5 KHz out

73, Steve

20599. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 01:12:41 UTC
From: Garey Barrell
Topic: 20594 Message: 20599

Steve -

A crystal is 'too far off frequency' when you get tired of slipping the dial skirt every time
you go to that band.! This assumes that the crystal is oscillating 'cleanly' at the 'off' frequency. These are mostly 3rd overtone crystals, so can get 'squirrelly'.

The original specification was +/- 0.003% or +/- 210 Hz at 7 MHz. Crystals from International
Crystal Manufacturing will easily meet this specification.

As for your numbers, NO BAND crystal is involved with 80 and 20M, so I would surmise that your
40M crystal is the outlier.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
>> Sounds like a bad crystal to me.
>>
>> Had a TR-3 that had one that was off by about 20 kc. It happens.
>>
>> 73,
>>
> A question then:-
>
> At what point do we declare a crystal as being too far off frequency and
> requiring replacement? Which I guess is the same as asking "What is the
> typical dial error seen between bands"? And is/was there a factory
> specification or tolerance value for this when new?
>
> On my TR-4C I have the following (using 3.5 as the reference):-
>
> 3.5 }
> 7.0 } All within 1KHz
> 14.0 }
>
> 21.0 ~= 8KHz out
> 28.0 ~= 15KHz out
> 28.5 ~= 15KHz out
> 29.0 ~= 17.5 KHz out

>
> 73, Steve
>

20600. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 01:18:27 UTC
From: David Nichols
Topic: 20594 Message: 20600

I thought maybe it might just have a bad connection in the socket on the 40 meter xtal. But apparently not. I dipped all of the crystals in deox and worked them back into the sockets a few times. This didnt seem to fix the problem with 40 meters so Ill have to order a new one tomorrow.
Maybe Ill see if I can get the old one apart so I can take a look at it. I dont believe Ill be able to repair it but I like to see how things are made.. hi hi
When I got this TR-4CW I wasnt thinking I would get this much fun out of it..

David - KX7C

From: Steve VK2SJA <vk2sja@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 30, 2014 5:59 PM
Subject: Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

> Sounds like a bad crystal to me.
>
> Had a TR-3 that had one that was off by about 20 kc. It happens.
>
> 73,
>

A question then:-

At what point do we declare a crystal as being too far off frequency and requiring replacement? Which I guess is the same as asking "What is the typical dial error seen between bands"? And is/was there a factory specification or tolerance value for this when new?

On my TR-4C I have the following (using 3.5 as the reference):-

3.5 }
7.0 } All within 1KHz
14.0 }

21.0 ~= 8KHz out
28.0 ~= 15KHz out
28.5 ~= 15KHz out
29.0 ~= 17.5 KHz out

73, Steve

[Non-text portions of this message have been removed]

20601. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 01:28:56 UTC
From: Steve Wedge
Topic: 20594 Message: 20601

I'll second that. I've come across many Twins using "funny" crystal frequencies that were obviously made for other applications, but will cover band segments on the Twins. It all depends on what your tolerance is to having the dial read "off" or how far you want to keep cranking the PTO knob to get it "in".

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Wednesday, April 30, 2014 9:12 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Steve -

A crystal is 'too far off frequency' when you get tired of slipping the dial skirt every time
you go to that band.! This assumes that the crystal is oscillating 'cleanly' at the 'off' frequency. These are mostly 3rd overtone crystals, so can get 'squirrelly'.

The original specification was +/- 0.003% or +/- 210 Hz at 7 MHz. Crystals from International
Crystal Manufacturing will easily meet this specification.

As for your numbers, NO BAND crystal is involved with 80 and 20M, so I would surmise that your
40M crystal is the outlier.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
>> Sounds like a bad crystal to me.
>>
>> Had a TR-3 that had one that was off by about 20 kc. It happens.
>>
>> 73,
>>
> A question then:-
>
> At what point do we declare a crystal as being too far off frequency and

> requiring replacement? Which I guess is the same as asking "What is the
> typical dial error seen between bands"? And is/was there a factory
> specification or tolerance value for this when new?
>
> On my TR-4C I have the following (using 3.5 as the reference):-
>
> 3.5 }
> 7.0 } All within 1KHz
> 14.0 }
>
> 21.0 ~= 8KHz out
> 28.0 ~= 15KHz out
> 28.5 ~= 15KHz out
> 29.0 ~= 17.5 KHz out
>
> 73, Steve
>

[Non-text portions of this message have been removed]

20602. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 01:31:35 UTC
From: Steve Wedge
Topic: 20594 Message: 20602

I took one apart recently. The construction is interesting - it looks almost like a piece of plastic with very fine wire going to a couple of spring contacts that connect to the pins.

It makes you appreciate how good the science is that can cut one of these for a precise frequency like they do.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: David Nichols
Sent: Wednesday, April 30, 2014 9:18 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

I thought maybe it might just have a bad connection in the socket on the 40 meter xtal. But apparently not. I dipped all of the crystals in deox and worked them back into the sockets a few times. This didnt seem to fix the problem with 40 meters so Ill have to order a new one tomorrow.
Maybe Ill see if I can get the old one apart so I can take a look at it. I dont believe Ill be able to repair it but I like to see how things are made.. hi hi
When I got this TR-4CW I wasnt thinking I would get this much fun out of it..

David - KX7C

From: Steve VK2SJA <vk2sja@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 30, 2014 5:59 PM
Subject: Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

> Sounds like a bad crystal to me.
>
> Had a TR-3 that had one that was off by about 20 kc. It happens.
>
> 73,
>

A question then:-

At what point do we declare a crystal as being too far off frequency and requiring replacement? Which I guess is the same as asking "What is the typical dial error seen between bands"? And is/was there a factory

specification or tolerance value for this when new?

On my TR-4C I have the following (using 3.5 as the reference):-

3.5 }
7.0 } All within 1KHz
14.0 }

21.0 ~= 8KHz out
28.0 ~= 15KHz out
28.5 ~= 15KHz out
29.0 ~= 17.5 KHz out

73, Steve

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20603. Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 01:36:30 UTC
From: David Nichols
Topic: 20594 Message: 20603

Yep, it looks like my crystal has taken a trip and forgot the way back. It alright, Ill get a new one and it will fix the problem. I have some new caps on the way and Im looking forward to not burning up much by-standing wiring removing the old ones and installing the new ones. So I will be seeing the insides of it for a while yet.
David - KX7C

From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, April 30, 2014 6:12 PM
Subject: Re: [DrakeRadio] TR-4CW CALIBRATOR ON 40M

Steve -

A crystal is 'too far off frequency' when you get tired of slipping the dial skirt every time
you go to that band.! This assumes that the crystal is oscillating 'cleanly' at the 'off' frequency. These are mostly 3rd overtone crystals, so can get 'squirrelly'.

The original specification was +/- 0.003% or +/- 210 Hz at 7 MHz. Crystals from International
Crystal Manufacturing will easily meet this specification.

As for your numbers, NO BAND crystal is involved with 80 and 20M, so I would surmise that your
40M crystal is the outlier.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
>> Sounds like a bad crystal to me.
>>
>> Had a TR-3 that had one that was off by about 20 kc. It happens.
>>
>> 73,
>>
> A question then:-
>
> At what point do we declare a crystal as being too far off frequency and
> requiring replacement? Which I guess is the same as asking "What is the
> typical dial error seen between bands"? And is/was there a factory
> specification or tolerance value for this when new?

>
> On my TR-4C I have the following (using 3.5 as the reference):-
>
> 3.5 }
> 7.0 } All within 1KHz
> 14.0 }
>
> 21.0 ~= 8KHz out
> 28.0 ~= 15KHz out
> 28.5 ~= 15KHz out
> 29.0 ~= 17.5 KHz out
>
> 73, Steve
>

[Non-text portions of this message have been removed]

20604. 2b Re: TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 02:18:49 UTC
From: John Sehring
Topic: 20604 Message: 20604

Another mod for bouncy meters.

Yes, the cap across it is a good idea. Even Hewlett-Packard used that trick in their gear. And yes, keep its voltage rating as low as possible. I've seen caps in such service that became unformed due to lack of voltage and time of voltage application. (I don't offhand know if bipolar and nonpolarized electrolytics would suffer less from this.)

Curing bouncing can also be done with a series and a parallel resistor.

To wit, I once had a MIL surplus meter, scale marked 0-50 uA. I opened it up (of course!) and found a parallel-connected resistor inside. (I don't recall the value of it, too long ago.)

When removed, the meter FS'd at 20 uA! Astonishing! Most sensitive D'Arsonval (moving coil type) movement I'd ever seen.

Except...it bounced like crazy. So I had to return some parallel resistance to it.

I could achieve under-damped, over-damped,and critically-damped action of the meter by varying the parallel resistor value.

(This is an exact analog to mechanical systems consisting of spring, mass, and viscous damper. We are equivalently changing the damping. Overdamped means that the meter pointer takes a long time to reach its reading; underdamped means meter moves too fast, over-shoots its reading and bounces; critically damped means the point gets to it reading as fast as possible with no overshoot.

As putting higher/lower parallel resistance on the meter will result in higher/lower readings, if you can manage it, circuit-wise, you can add or change a series resistor to get readings back to accurate again, and can have the meter action you want, slow to fast and all in between.

The Drake meters use the cheaper moving iron vane type movements. More rugged but liable to have poor damping characteristics. However in this non-critical app, it's just fine.

P.S. I ALWAYS check metering series and shunt resistors first thing when a piece of older gear comes into the shack. Some are off the mark, sometimes in the undesirable direction.

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

[Non-text portions of this message have been removed]

20605. Re: TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 02:22:50 UTC
From: Fred or Ski
Topic: 20594 Message: 20605

Hello David,

I was going to suggest you look further away for the cal signal as I had an R4b with bad band crystals. Some were more than 30kc off and was very confusing to find the correct cal signal on the dial skirt. I ordered 3 crystals from ICM and now all are in line. This is more difficult when the cal signal is at 25kc and you don't know which is the correct one for the freq you are looking for. That is why I set my calibrator to 50kc.

Ski-WB8YXI

[Non-text portions of this message have been removed]

20606. Re: [DrakeRadio] Re: TR-4CW CALIBRATOR ON 40M

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 02:38:45 UTC
From: Richard Knoppow
Topic: 20594 Message: 20606

----- Original Message -----
From: "Fred or Ski" <wb8yxi@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, April 30, 2014 7:22 PM
Subject: [DrakeRadio] Re: TR-4CW CALIBRATOR ON 40M

Hello David,

I was going to suggest you look further away for the cal signal as I had an R4b with bad band crystals. Some were more than 30kc off and was very confusing to find the correct cal signal on the dial skirt. I ordered 3 crystals from ICM and now all are in line. This is more difficult when the cal signal is at 25kc and you don't know which is the correct one for the freq you are looking for. That is why I set my calibrator to 50kc.

Ski-WB8YXI

I think the OP reported that the calibrator could be heard if the bandswitch was not quite at the detent. That sounds more like the switch rotors are not quite aligned with the stators. I think the TR-4 switch has a right angle drive and it would be worth looking at that. Also, check the long bolts that hole the switch together, they may be loose allowing one or more of the stators to move around a little. The fact that cleaning the switch helped suggests there is still a problem with it. I found the bandswitch in my TR-4 was very fussy and needed repeated cleanings and some tightening to work reliably.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20607. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 06:39:12 UTC
From: Michael Engstrom
Topic: 20499 Message: 20607

What a great observation Garey!
I did a cursory ohmmeter check at one point, but it is worth really focusing on.
That could account for the symptoms - if the output tank is out of sync with the input selection. I'll put a meter on it and confirm...

but I do get a dip at the appropriate point on the plate tune control on the front panel. For example, if I've selected the 40 meter band, there is a plate current dip right at the 40 meter red pointer area on the front panel. If I select the 80 meter band, there is a plate current dip at the 80 meter band position on the front panel. Since the plate tuning and loading are on the same switch section, and cannot get out of sync with each other, my hopes are low.

Again, what a great observation Garey. I really want the input and output to be out of sync! I will investigate and report back.
On Apr 30, 2014 5:51 PM, "Garey Barrell" <k4oah@mindspring.com> wrote:

>
>
> Michael -
>
> Something was pointed out to me that I had forgotten. The BAND switch is
> of course the input
> wafers and the output wafers. They are 'ganged' by the bead chain. They
> can get out of sync if
> the chain has been broken and repaired incorrectly, or in some cases just
> slipped.. Have you
> verified that the input and output wafers are on the same band???
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
>
>

[Non-text portions of this message have been removed]

20608. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 10:14:27 UTC
From: Damien Mannix
Topic: 19916 Message: 20608

Bob, thank you for your welcome and comments. Yes it is obviously a group of very kindly and helpful people. I am so glad to be a member.

73,

Damien G3XER

CC: drakeradio@yahoogroups.com
To: DrakeRadio@yahoogroups.com
From: bob.logan47@...
Date: Wed, 30 Apr 2014 13:19:57 -0500
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien, this is the best group I've ever been in, bar none. Learning goes two-way here and all are good guys. Welcome to the group.

Oh, and don't be intimidated by the expertise generally shown. I've asked many a beginner's question and never been embarrassed by the responses to me. All helpful, all courteous.

73, Bob NZ5A

Sent from my iPhone

On Apr 30, 2014, at 10:41 AM, Damien Mannix <damienmannix@...> wrote:

Garey,

Thanks for the invite to join and the welcome. Enjoying the forum very much and learning a lot. Hope to be on air in a couple of weeks.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com

From: k4oah@...

Date: Tue, 8 Apr 2014 12:14:05 -0400

Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien -

Welcome. Don't worry, most folks on here are NOT experts, but that does NOT mean that they

can't contribute! Contributions take many forms, sometimes only loosely related to Drake radio

gear!! :-) I believe the only qualifying requirement is that you enjoy using Drake gear. It

doesn't hurt if you believe it is the BEST radio equipment, but is not a requirement.

Welcome 'back' to ham radio and the enjoyment of Drake!!

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs

<www.k4oah.com>

Damien Mannix wrote:

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

>

> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

>

> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

>

> In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

>

> So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

>

> Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

>

> 73 to all,

>

> Damien G3XER

>

[Non-text portions of this message have been removed]

Yahoo Groups Links

[Non-text portions of this message have been removed]

20609. bandswitch re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 12:53:00 UTC
From: Evan Rolek
Topic: 20499 Message: 20609

Michael,

The output bandswitch section basically "can't get out of sync with itself". Why? There is a flat on the shaft so that the bandswitch pointer knob has to be in the right position with respect to the contact configuration for the output pi-network. Hence, the pi-network will function properly. However, if the cogged belt connecting that switch to the input wafer is "misaligned", then the input wafer could conceivably be on the wrong band position. This would result in the wrong input coil being selected for the respective bands with one band having no input coil. This would result in reduced drive to the amp and who knows what other problems, although it might still function depending on the harmonic relationship between the input coil and the output pi-network.

Too, checking the calibration of the grid current metering circuit should be a basic check.

73,

Evan, K9SQG

[Non-text portions of this message have been removed]

20610. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 13:06:04 UTC
From: <rochep@...>
Topic: 20484 Message: 20610

I have a question about how to really tune up a Drake TX. The procedures outlined in the T4XB manual and T4XC manual are different.

The T4XC manual says:
Peak RF TUNE and then dip the plate with MINIMAL GAIN
Set GAIN to the 12:00 position, re-dip plate and increase LOAD till no more output.
Re-check RF TUNE

The T4XB manual says:
Peak RF TUNE and then dip the plate with MINIMAL GAIN
Increase GAIN until plate current no longer increases
Adjust LOAD and PLATE for maximum RF out (this will be at plate dip), re-dip plate

It is step 2, the GAIN control setting is the main difference. Is one way better than the other, and does it matter which system I use for either transmitter? When switching to CW I simply increase the GAIN until I have either 100 watts out or 0.34A of plate current and then re-dip plate.

Also, is poor EFFICIENCY an indicator of bad finals? Tuned into a dummy load on 40 meters with my T4XB the efficiency with 80 watts output is 55% (0.22A), but on my T4XC the efficiency with 80 watts output is 35% (0.35A). The neutralization on each seems to be about right on.

paul

paul

[Non-text portions of this message have been removed]

20611. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 14:34:21 UTC
From: Garey Barrell
Topic: 20484 Message: 20611

Paul -

I don't think it's very important either way..... I understand the reasoning for both procedures. The PRIMARY goal in tuning up is to keep the PLATE current dipped, minimizing 'out
of resonance' (undipped) time to the least possible.

1. The C method is get a little plate current by increasing the GAIN and dip the plate. Peak
the RF TUNE. Then set GAIN to 12:00 position (which is past the point where the ALC kicks in
and limits the output) and alternately adjust PLATE and LOAD until max output is reached.

2. The B method is a little more 'old school'. Start out by increasing the GAIN for a 'little'
power and dip the plate. Peak the RF TUNE. Then increase the GAIN (used to be 'increase the drive') to maximum output. Adjust PLATE and LOAD controls for maximum output, finishing by DIPPING THE PLATE!

So essentially the procedure is the same. The C method sets the GAIN past the known point of
ALC action, while the B method sets the GAIN just 'to' the ALC point. Again, the only thing that really matters is that the plate is DIPPED.

Yes, efficiency drops off as the tubes age. It's first apparent on 10M and proceeds to the lower bands over time. The transmitters are functionally identical.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... wrote:
> I have a question about how to really tune up a Drake TX. The procedures outlined in the T4XB manual and T4XC manual are different.
>
> The T4XC manual says:
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> Re-check RF TUNE
>
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> Peak RF TUNE and then dip the plate with MINIMAL GAIN
> Increase GAIN until plate current no longer increases
> Adjust LOAD and PLATE for maximum RF out (this will be at plate dip), re-dip plate

>
> It is step 2, the GAIN control setting is the main difference. Is one way better than the other, and does it matter which system I use for either transmitter? When switching to CW I simply increase the GAIN until I have either 100 watts out or 0.34A of plate current and then re-dip plate.
>
>
> Also, is poor EFFICIENCY an indicator of bad finals? Tuned into a dummy load on 40 meters with my T4XB the efficiency with 80 watts output is 55% (0.22A), but on my T4XC the efficiency with 80 watts output is 35% (0.35A). The neutralization on each seems to be about right on.
>
>
>

20612. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 14:40:00 UTC
From: Damien Mannix
Topic: 19916 Message: 20612

Don, sorry for the delay in replying but thank you for your kind message. Yes I hope we can rag chew one day soon.

You did well to put up any antenna in winter. Wish I was so tough! Needless to say I have had one or two distractions, which I could not avoid, but hope to have an antenna up for at least some bands in a couple of weeks or so.

Keep enjoying that room FULL of gear.

73

Damien G3XER

To: DrakeRadio@yahoogroups.com
From: donc@...
Date: Tue, 8 Apr 2014 11:33:03 -0500
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien,

Welcome back to ham radio and Drakes. As others have already said, you

will find this a welcoming group, and even dumb as I am, they let me

contribute once in a while to things. I too am a consumate rag chewer

and hope to work you one day on the air. I have a room FULL of gear,

and growing daily literally, so we should have NO trouble, HI.

Again, welcome to the group, and enjoy those Drakes. You have a fine

start again. Antenna is next, but don't wait too long on the warm

weather or it won't work properly. I put up my beam this winter between

storms quite literally but it did warm some!!!!!!!

73,

Don, WB5HAK

On 4/8/2014 10:16 AM, Damien Mannix wrote:

>

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though
> a little concerned that I have far too little knowledge to contribute
> much! The welcome email suggests I introduce myself so here goes.
>
> Got my licence in 1967 and operated SSB on the HF bands until 1975.
> Used an early commercial SSB transmitter, the British made KW Viceroy,
> which had an excellent reputation at the time and with which I was
> very happy. (I wonder if any are still in use?) For receiving I had an
> immaculate AR88D initially, absolutely marvellous but not designed for
> SSB of course, followed by an Eddystone 840C which was not designed
> for SSB either and then a mediocre Star receiver.
>
> G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A.
> This I did and could not have been more delighted with that receiver
> which was light years ahead of anything I had used before. So a
> lifelong Drake fan was born.
>
> In late 1975 I had to move city for job reasons, then I had to move
> again and yet again. Marriage and bringing up a family occupied time
> of course and I also started a small business which never really
> prospered but gave me a good living as long as I worked 60 hours a
> week and travelled a lot internationally. Ham radio was reduced to
> scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now
> retired, I realise 38 years have gone and I do not know where! No idea!
>
> So I am now putting together a station and the main thing missing at
> the moment is an antenna! So the most important thing comes last?
> Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C,
> MS4, MN2700 and even a Drake 7075 Mic'.

>

> Finally I should mention that I have been fortunate enough to make a

> few contacts recently when on holiday in the Bahamas with the

> reciprocal call of C6AXE. This confirmed my interest in the World's

> best hobby, not that I really ever had any doubts. I am rag-chewer

> rather than a DX man and hope to meet some of you on air.

>

> 73 to all,

>

> Damien G3XER

>

>

> [Non-text portions of this message have been removed]

>

>

This email is free from viruses and malware because avast! Antivirus protection is active.

http://www.avast.com

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20613. Re: [DrakeRadio] 2b Re: TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 14:45:23 UTC
From: Robert Spooner
Topic: 20604 Message: 20613

Thanks for the interesting post on meter damping. The advantage of moving vane meters is that they indicate true RMS, so I?m not sure Drake was just trying to save money.

73,
Bob AD3K

On Apr 30, 2014, at 10:18 PM, John Sehring <wb0eq@...> wrote:

> Another mod for bouncy meters.
>
>
...
> The Drake meters use the cheaper moving iron vane type movements. More rugged but liable to have poor damping characteristics. However in this non-critical app, it's just fine.
>
...
>
> --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
>
> [Non-text portions of this message have been removed]
>
>
>

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20615. Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 14:54:13 UTC
From: Michael Engstrom
Topic: 20499 Message: 20615

Thank you Evan. I will check the input SWR on all the bands. If the input section of the L4B is out of sync I should get high SWR on the exciter... Yes? I checked it on 40 a while back and believe it was flat.
On May 1, 2014 5:53 AM, "Evan Rolek" <k9sqg@...> wrote:

>
>
> Michael,
>
> The output bandswitch section basically "can't get out of sync with
> itself". Why? There is a flat on the shaft so that the bandswitch pointer
> knob has to be in the right position with respect to the contact
> configuration for the output pi-network. Hence, the pi-network will
> function properly. However, if the cogged belt connecting that switch to
> the input wafer is "misaligned", then the input wafer could conceivably be
> on the wrong band position. This would result in the wrong input coil being
> selected for the respective bands with one band having no input coil. This
> would result in reduced drive to the amp and who knows what other problems,
> although it might still function depending on the harmonic relationship
> between the input coil and the output pi-network.
>
> Too, checking the calibration of the grid current metering circuit should
> be a basic check.
>
> 73,
>
> Evan, K9SQG
>
> [Non-text portions of this message have been removed]
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>
>

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20616. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 15:02:09 UTC
From: Damien Mannix
Topic: 19916 Message: 20616

Dan, thank you for your welcome and for taking so much trouble in explaining about your successful servicing of Drake equipment. I am red/green blind myself, as lots of males are for some reason, so can understand your frustration with resistor colour codes. Strangely I managed to pass a lantern test many years ago but I cannot make head nor tale of those weird colour test pages! Isshara or something I think they are called.

Your comments on Drake & Collins receivers versus modern Japanese transceivers are most interesting. I wonder how well the TR4 line receivers compare with the R4 receivers. It is a lifetime ago but I seem to remember my R4A had some notch or passband shifting facility which was most useful but the TR4 does not have this.

Sorry to hear you are disposing of so much of your lovely vintage gear but I am sure you have your reasons.

Thanks again for all your information.

73
Damien G3XER

To: DrakeRadio@yahoogroups.com
From: w3rxo@...
Date: Tue, 8 Apr 2014 12:29:19 -0500
Subject: Re: [DrakeRadio] Damien G3XER delighted to join the group

Damien

I might add, that I am likely one of the least experienced, at repair work, here on the list. A couple of years back, I ran into a unique situation, where I did something stupid, and burned up a friend's R4C, which he was wanting to sell. I wound up paying full price, for the radio I had broken. Since my repair knowledge was very limited, and certainly I was more familiar, and comfortable, working in a transmitter, than a receiver, I suggested that since it was otherwise a seemingly good radio, that maybe I ought to part it out, in attempt to get as much of my cost, back out of it, as I could. I am color blind, and wire color codes, always frightened the heck out of me. It's not that I wanted to part it out, but my wallet was overtaking my thought process, at that point.

After a proper chastising, from a few of the good members here, and encouragement from others, who were convinced that they could help guide me through it, I tackled the issue. It turned out to need a transformer, and some diodes in the PS. AND, gave me enough confidence, that I tackled two other receivers, shortly after that.

Now, I sold the receiver, for about what I paid for it (I think I sold it for $10 less than I paid), and really only lost the cost of the parts that I broke. A pretty decent deal, since it kept a very nice R4C in use. But, the best part, was when the fellow who purchased it, called back, and said that he was using it, and liked the receive so much, that he decided to try comparing it, with his Kenwood TS-950SDX. When he did so, he found the R4C, to be a superior receiver to both it, and an Icom IC-756ProIII.

One of the other receivers that I tackled, because of the wonderful guidance I received here, was a Collins 75A-4. When I sold it, the purchaser, a Collins Collector, said it was the best receiver in his shack, at the time. The third, is the Hammarlund HQ-150, that currently graces my shack, as my only remaining tube type receiver, in everyday use.

I have THIS GROUP, to thank, for the help and encouragement. My best advice is this. If/when you do any work, on your Drakes, please, take AMPLE NUMBERS of good resolution photos, and post descriptions of your problems, solutions, and results here. You will have access to an invaluable resource, in this group.

Even though I have recently sold most all of my Drake equipment, with the rest soon to follow, as well as most of my Collins gear, I will remain a member here, as this is, as mentioned, the finest group, of it's type, available, anywhere.

73,

Dan

W3RXO/W5

Evening Shade, OK

EM25no

"If ye love wealth, greater than liberty, the tranquility of servitude, greater than the animating contest, for freedom, then go home from us, in peace. We seek not your counsel, nor your arms. Crouch down, and lick the boot, of the hand that feeds you, and may posterity forget, that ye were once our countrymen".

Samuel Adams-Patriot and Brewer

Sent from my iPad.

> On Apr 8, 2014, at 10:16, Damien Mannix <damienmannix@...> wrote:

>

> Hi all,

>

> Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

>

> Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

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>

> 73 to all,

>

> Damien G3XER

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> Yahoo Groups Links

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20617. Re: [DrakeRadio] 2b Re: TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 15:03:35 UTC
From: Garey Barrell
Topic: 20604 Message: 20617

John Sehring wrote:

>> Yes, the cap across it is a good idea. Even Hewlett-Packard used that trick in their gear. And yes, keep its voltage rating as low as possible. I've seen caps in such service that became unformed due to lack of voltage and time of voltage application. (I don't offhand know if bipolar and nonpolarized electrolytics would suffer less from this.)

Drake used this technique on the 2-NT transmitter.

>> The Drake meters use the cheaper moving iron vane type movements. More rugged but liable to
have poor damping characteristics. However in this non-critical app, it's just fine.

You haven't seen a 'bouncy' meter until you try to tune up a transmitter using one of the old
Shurite meters like those used on the Heath AT-1, DX-35 or the WRL Globe Chief, etc. Almost all
of the Drake meters exhibit a nice, smooth response similar to a moving coil movement. However,
'some' go crazy and emulate the old Shurite meters!! I don't know, but I suspect that the Drake
meters had some sort of grease or heavy oil on the pivots to damp them. The TR series meters
seem to be more prone to this, possibly because of the considerably higher heat relative to the
twins. There are very heavy Silicone oils with 'weights' in the hundreds or even thousands that
were used in the era for damping tone arm suspensions (yeah, I know, "what's a 'tone arm'"...
part of a 'record player' ... never mind).

>> P.S. I ALWAYS check metering series and shunt resistors first thing when a piece of older
gear comes into the shack. Some are off the mark, sometimes in the undesirable direction.

Absolutely! ALWAYS do this, right after you check to insure that the 'correct' fuse is in the
fuse holder!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20618. Re: TR7: replacing 2nd IF/Audio Board - I did it !

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 15:05:02 UTC
From: <damico@...>
Topic: 20505 Message: 20618

Ok, I did it…
I replaced the 2nd IF board ver.1 of my TR-7 with a newer board ver.2 (that I got from a second TR7 that I bought - for parts - at a very low price). First, I replaced the 8 electrolytic capacitors with fresh ones, then I modified the PBT board by replacing/removing the two resistors to adapt the BFO level (thanks everybody for the hint). I finished the work aligning the IFs and the AGC / S-meter circuit. The board worked immediately, and my impression is that the audio quality is better (ok, it maybe a placebo effect :-))… also the action of the AGC seems to be smoother.

One thing that can be of general interest is that on BOTH boards (i.e. the old ver. 1 and the new ver. 2) I had to replace the same defective (noisy) transistor Q1113 (2N3904), the preamplifier in the audio stage. It causes a continuous low-frequency rumble/crackling, that is most audible when the RF gain is set at minimum (i.e. completely CCW). The rumble level was independent on the volume setting, indicating that the problem was beyond the volume pot. If you are experiencing something like that on your TR7, you know who the culprit is… I wonder if this is something related only to the AF stage, or it is a common problem with aging 2N3904s…. this would be a nightmare, since Drake used A LOT of those transistors in the TR7…

Again, thanks everybody for the hints and suggestions !

73,
Michele

[Non-text portions of this message have been removed]

20619. RE: [DrakeRadio] Damien G3XER delighted to join the group

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 15:15:17 UTC
From: Damien Mannix
Topic: 19916 Message: 20619

Hi Keith,

Nice to hear that there are a few U.K. Drake fanatics. Thanks for letting me know and for your kind welcome.

Maybe there is a case for an informal Drake get together at Newark in September!

73

Damien G3XER
To: DrakeRadio@yahoogroups.com
From: g3vkw@...
Date: Wed, 9 Apr 2014 00:21:46 +0100
Subject: RE: [DrakeRadio] Damien G3XER delighted to join the group

Hello Damien,

You will find there are quite a few UK Drake fanatics on this list, they may well not be often seen,

But they read the ?posts?

Welcome to a very nice facility run by Gary, a lot of very useful info appears.

73

Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Damien Mannix

Sent: 08 April 2014 16:16

To: DrakeRadio@yahoogroups.com

Subject: [DrakeRadio] Damien G3XER delighted to join the group

Hi all,

Garey kindly invited me to join and I am very pleased to do so though a little concerned that I have far too little knowledge to contribute much! The welcome email suggests I introduce myself so here goes.

Got my licence in 1967 and operated SSB on the HF bands until 1975. Used an early commercial SSB transmitter, the British made KW Viceroy, which had an excellent reputation at the time and with which I was very happy. (I wonder if any are still in use?) For receiving I had an immaculate AR88D initially, absolutely marvellous but not designed for SSB of course, followed by an Eddystone 840C which was not designed for SSB either and then a mediocre Star receiver.

G3PTN, designer of the Zygi beam, suggested I find a good Drake R4A. This I did and could not have been more delighted with that receiver which was light years ahead of anything I had used before. So a lifelong Drake fan was born.

In late 1975 I had to move city for job reasons, then I had to move again and yet again. Marriage and bringing up a family occupied time of course and I also started a small business which never really prospered but gave me a good living as long as I worked 60 hours a week and travelled a lot internationally. Ham radio was reduced to scanning Radcom (RSGB monthly mag') when I had time. Suddenly, now retired, I realise 38 years have gone and I do not know where! No idea!

So I am now putting together a station and the main thing missing at the moment is an antenna! So the most important thing comes last? Blame the winter for that. So far I have a very clean TR4, AC4R, RV4C, MS4, MN2700 and even a Drake 7075 Mic'.

Finally I should mention that I have been fortunate enough to make a few contacts recently when on holiday in the Bahamas with the reciprocal call of C6AXE. This confirmed my interest in the World's best hobby, not that I really ever had any doubts. I am rag-chewer rather than a DX man and hope to meet some of you on air.

73 to all,

Damien G3XER

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20620. Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 15:32:18 UTC
From: Michael Engstrom
Topic: 20499 Message: 20620

Evan -

SWR on the input of the L4B on all bands is flat. < 1.3:1 as read from the ft1000d exciter. Moving the L4B off band produced SWR's in excess of 3:1. Do you concur with the way I have done this?

Thank you again for your insight.
On May 1, 2014 7:54 AM, "Michael Engstrom" <michael.engstrom.73@...> wrote:

> Thank you Evan. I will check the input SWR on all the bands. If the input
> section of the L4B is out of sync I should get high SWR on the exciter...
> Yes? I checked it on 40 a while back and believe it was flat.
> On May 1, 2014 5:53 AM, "Evan Rolek" <k9sqg@...> wrote:
>
>>
>>
>> Michael,
>>
>> The output bandswitch section basically "can't get out of sync with
>> itself". Why? There is a flat on the shaft so that the bandswitch pointer
>> knob has to be in the right position with respect to the contact
>> configuration for the output pi-network. Hence, the pi-network will
>> function properly. However, if the cogged belt connecting that switch to
>> the input wafer is "misaligned", then the input wafer could conceivably be
>> on the wrong band position. This would result in the wrong input coil being
>> selected for the respective bands with one band having no input coil. This
>> would result in reduced drive to the amp and who knows what other problems,
>> although it might still function depending on the harmonic relationship
>> between the input coil and the output pi-network.
>>
>> Too, checking the calibration of the grid current metering circuit should
>> be a basic check.
>>
>> 73,
>>
>> Evan, K9SQG
>>
>> [Non-text portions of this message have been removed]
>>
>>
>>
>>
>

[Non-text portions of this message have been removed]

20621. Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 16:05:36 UTC
From: Joe - W7RKN
Topic: 20499 Message: 20621

Hey Mike! I have the solution for your L-4B issue.....Sell it to me and I will fix it...I have a parts L-4B already so swapping parts would be no issue!

Oh wait...then that would deny you the satisfaction of the great feeling of accomplishment, when you get it working!

OK, forget it! Heh!!

Joe - W7RKN

----- Original Message -----
From: "Michael Engstrom" <michael.engstrom.73@...>
Subject: Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.

> Evan -
>
> SWR on the input of the L4B on all bands is flat. < 1.3:1 as read from the
> ft1000d exciter. Moving the L4B off band produced SWR's in excess of 3:1.
> Do you concur with the way I have done this?
>
> Thank you again for your insight.

20622. Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 16:29:54 UTC
From: Michael Engstrom
Topic: 20499 Message: 20622

Hey Joe,
I do fully intend to sell this amplifier when I get it working... bought it with the idea that the tubes were bad... but the tubes are good! So there is something else going on.... which at this point seems to be the understatement of the week!

Mike. AA7WM
On May 1, 2014 9:05 AM, "Joe - W7RKN" <w7rkn.7@...> wrote:

>
>
> Hey Mike! I have the solution for your L-4B issue.....Sell it to me and I
> will fix it...I have a parts L-4B already so swapping parts would be no
> issue!
>
> Oh wait...then that would deny you the satisfaction of the great feeling
> of
> accomplishment, when you get it working!
>
> OK, forget it! Heh!!
>
> Joe - W7RKN
>
> ----- Original Message -----
> From: "Michael Engstrom" <michael.engstrom.73@gmail.com>
> Subject: Re: [DrakeRadio] bandswitch re: L4B - low output with new tubes.
>
> > Evan -
> >
> > SWR on the input of the L4B on all bands is flat. < 1.3:1 as read from
> the
> > ft1000d exciter. Moving the L4B off band produced SWR's in excess of 3:1.
> > Do you concur with the way I have done this?
> >
> > Thank you again for your insight.
>
>
>

[Non-text portions of this message have been removed]

20623. Re: [DrakeRadio] Re: TR7: replacing 2nd IF/Audio Board - I did it !

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 16:38:53 UTC
From: Joe Pyles
Topic: 20505 Message: 20623

On my TR7A and R7A I have replaced Q1113 (TR7A)
and Q1110 (R7A) with a BC549C low noise
transistor which helped the noise a little bit in the audio.

73, Joe KC9LAD

At 11:05 AM 5/1/2014, you wrote:
>
>
>
>
>Ok, I did it
>I replaced the 2nd IF board ver.1 of my TR-7
>with a newer board ver.2 (that I got from a
>second TR7 that I bought - for parts - at a very
>low price). First, I replaced the 8 electrolytic
>capacitors with fresh ones, then I modified the
>PBT board by replacing/removing the two
>resistors to adapt the BFO level (thanks
>everybody for the hint). I finished the work
>aligning the IFs and the AGC / S-meter circuit.
>The board worked immediately, and my impression
>is that the audio quality is better (ok, it
>maybe a placebo effect :-)) also the action of the AGC seems to be smoother.
>
>
>One thing that can be of general interest is
>that on BOTH boards (i.e. the old ver. 1 and the
>new ver. 2) I had to replace the same defective
>(noisy) transistor Q1113 (2N3904), the
>preamplifier in the audio stage. It causes a
>continuous low-frequency rumble/crackling, that
>is most audible when the RF gain is set at
>minimum (i.e. completely CCW). The rumble level
>was independent on the volume setting,
>indicating that the problem was beyond the
>volume pot. If you are experiencing something
>like that on your TR7, you know who the culprit
>is I wonder if this is something related only
>to the AF stage, or it is a common problem with
>aging 2N3904s . this wwould be a nightmare,
>since Drake used A LOT of those transistors in the TR7
>
>
>Again, thanks everybody for the hints and suggestions !

>
>
>
>73,
>Michele
>
>
>
>[Non-text portions of this message have been removed]
>
>
>
>No virus found in this message.
>Checked by AVG - <http://www.avg.com>www.avg.com
>Version: 2014.0.4570 / Virus Database: 3931/7424 - Release Date: 05/01/14

[Non-text portions of this message have been removed]

20624. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 16:40:28 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20624

Hi Garey

Here are my results all DC unless noted.

V4

1 159
2 0.07
3 -
4 6.1 ac
5 0 ?
6 0 ?
7 205
8 159

V11

1 0
2 1.77
3 0
4 6.3 ac
5 218
6 116
7 0
8 -

V17

1 0
2 10.3
3 0
4 6 ac
5 210
6 218
7 -
8 -

Thanks

Bill
N1CQ

[Non-text portions of this message have been removed]

20625. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 16:59:19 UTC
From: Garey Barrell
Topic: 20448 Message: 20625

Your voltages look reasonable. Do you have a DMM??

Try measuring the DC voltage across the meter terminals. You should measure 1 VDC or less, with
RF GAIN max CCW you should read 1 volt.??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> Hi Garey
>
> Here are my results all DC unless noted.
>
> V4
>
> 1 159
> 2 0.07
> 3 -
> 4 6.1 ac
> 5 0 ?
> 6 0 ?
> 7 205
> 8 159
>
>
> V11
>
> 1 0
> 2 1.77
> 3 0
> 4 6.3 ac
> 5 218
> 6 116
> 7 0
> 8 -
>
>
> V17
>
> 1 0
> 2 10.3

> 3 0
> 4 6 ac
> 5 210
> 6 218
> 7 -
> 8 -
>
>
> Thanks
>
> Bill
> N1CQ
>
>
>
>
>
>
>
> [Non-text portions of this message have been removed]
>
>
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> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

20626. amp meter swing, TR-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 17:39:51 UTC
From: David Nichols
Topic: 20626 Message: 20626

This working for me, its up to you if you want to try it and see if it works for you. My meter was swinging back and forth like it was a pendulum. It took almost forever to come to rest so I could make a meaningful adjustment. I bought a new set of meters and went to work with what I was doing. When I got some time to inspect the pulled meter I opened it up and figured out how it worked. I did not figure out what it should take for full scale reading. I figured it needed fixed when I started so if I couldnt fix it "so what". This aint my first meter, Ive been into a few and can set them up to full scale just fine. In any event, if you open your meter up there are some steps you need to be aware of. First off they have a magnet in them, while in this meter configuration it may not be extremely critical in other meters it is very critical. It only takes one extremely tiny magnetic particle to make a meter movement hangup or stick. You MUST have a clean work area. Cover your bench with fresh paper towels or something that is new. You may think you have a clean work area but you dont if you dont cover it with something new. The new cover must be large enough that magnet doesnt reach out and suck some microscopic sliver into the case. No, its not a super magnet but you cant see those little things without a good eye and a magnifier lens. Dont create a problem you dont already have. I wont attempt to explain how these work and Im sure Ill get my share of detractors with what Im saying. These meters pivot on a shaft with pointed ends. The ends fit into very small divots, if you manage to get one of the ends out of place it must be put back. Oh, did I mention, they are delicate. A heavy hand will ruin your meter in a heartbeat. To give yourself some idea about the meters movement place your digital ohm meter on the terminal screws mine measures about 230 ohms. By the way, so does the S meter. If you put the leads on backwards the meter will go backwards so turn the test leads around. Make note the reading you got on the amp meter. You want it to be the same after your done playing with it. Unless you know what the full scale setup is of course. Any way, as I was saying the need swings on pivot points. It is my contention that over time and many heat-up and cool-down sessions the meter frame has expanded and loosened up this pivot point a little. So the trick is to tighten that pivot just a little. If you look into the meter case you will see a brass frame at the back of the needle. It will have a zero adjust slot on it. The zero adjustment has been set in place with some kind of clear coating. It should not move simply by touching it. You need to press down on that little piece of brass just a little bit. A big push will lock up your meter and will require you to work more than you should. Just give it a little nudge like a fly landed on it and see if it made a change. If you get it to tight it wont go to the setting you got with your ohm meter. For the nay sayers, Ive already done this... you cant tell me it cant be done.

[Non-text portions of this message have been removed]

20627. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 17:46:09 UTC
From: <rochep@...>
Topic: 20484 Message: 20627

Thanks so much. Maybe I will swap the finals on the two transmitters tonight and see if things "reverse" themselves in terms of efficiency and current.

paul

[Non-text portions of this message have been removed]

20628. Re: [DrakeRadio] Re: TR7: replacing 2nd IF/Audio Board - I did it !

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 18:50:35 UTC
From: <damico@...>
Topic: 20505 Message: 20628

Hello Joe,
I replaced the transistor with another 2N3904 (new, current production) and the problem went away... I think it can be something related to aging of the semiconductor...
73,

Michele

[Non-text portions of this message have been removed]

20629. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 19:55:41 UTC
From: w7fe
Topic: 20499 Message: 20629

OK, how about this?

Step 1: First isolate and check the loading capacitor with a capacitance meter to verify that each section produces the correct capacitance change when rotated. If OK, restore the connections and go to step 2.

Step 2: Lift the connection from the C22-C24 junction to the tube filaments. Connect a piece of RG-8X co-ax through a suitable, known good .01 uF capacitor to that point and put a PL-259 at the other end. Connect it to the exciter and operate the amplifier, thereby either eliminating or exposing the input circuitry as the problem area.

Step 3: Obviously if it works correctly with this setup, the problem will be at least isolated to components in the input or ALC circuitry. OTOH, if it continues to produce similar goofy results, there are at least a lot fewer components to suspect. I'd start with checking capacitance of each of the 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.

Step 4 (grasping at straws): Perhaps there is a possibility of center conductor migration in any co-ax interconnections within the amplifier which are routed around a tight radius (if there are any). While this condition may not produce a short to the shield, the impedance hump at that point might be enough to cause tuning issues.

73 de Stu, W7FE

----- Original Message -----
From: "Michael Engstrom" <michael.engstrom.73@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, April 30, 2014 3:58 PM
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> Copy that. Yes filaments.
>
> Thank you for your thoughts.
> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
>
>>
>>
>> I believe "cathodes" in this instance means filament. The 3-500 series is
>> not indirectly heated and thus has no cathode per se.
>>
>> -----Original Message-----
>> From: Michael Engstrom <michael.engstrom.73@...>
>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> Sent: Wed, Apr 30, 2014 3:27 pm
>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.

>>
>> Chris -
>>
>> Thank you for your input Chris.
>> The only modifications this amplifier has is the surge protector and soft
>> key mods from Harbach electronics. Removing the surge protector produced
>> no
>> change in performance.
>> I don't have a schematic in front of me so I'm going from memory at this
>> point:
>>
>> When the amplifier is keyed, the cathodes become common to the grounded
>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the grids
>> are
>> allowed to conduct with adequate drive. When not keyed the cathodes
>> receive
>> +120 volts from the T/R relay and power supply effectively cutting off
>> all
>> plate and grid current .
>> On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:
>>
>> >
>> >
>> > Are you sure someone didn't attempt to modify that amp for class B or
>> > C?
>> > If successful one would expect more power out, but this might explain
>> > the
>> > low drive required (20w you said?) to obtain the specified grid
>> > current.
>> >
>> > Just a thought
>> >
>> > Chris
>> >
>> > Sent from my outdated iPhone wireless thingy
>> >
>> > On Apr 30, 2014, at 1:45 PM, Michael Engstrom <
>> > michael.engstrom.73@...> wrote:
>> >
>> > > Yes, except the grid current is way too high for such a low output.
>> > >
>> > > > 230 ma grid current.
>> > > > 250 ma plate current
>> > > > 2500 plate voltage
>> > > > 625 watt input
>> > > > About 350 watts output
>> > > > 56% efficiency
>> > >
>> > > > The answer must be resting somewhere within the excessive grid
>> > > > current

>> > > reading.
>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
>> wrote:
>> > >
>> > > >
>> > > >
>> > > > Really strange behavior... Sounds exactly like what happens if the
>> LOAD
>> > > > control is fully CCW,
>> > > > and reducing the LOAD capacitance should cause the PLATE current to
>> > > > increase. Just what I would
>> > > > expect if the LOAD variable was NOT turning.
>> > > >
>> > > > I'm assuming the PLATE current you are seeing is consistent with
>> > > > the
>> > > > amount of output power you
>> > > > are seeing.?? About 400 mA in CW??
>> > > >
>> > > > 73, Garey - K4OAH
>> > > > Glen Allen, VA
>> > > >
>> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> > > > and TR-4/C Service Supplement CDs
>> > > > <www.k4oah.com>;
>> > > >
>> > > > Michael Engstrom wrote:
>> > > > > Garey -
>> > > > >
>> > > > > Wanted to let you know that the 400 Watts the L4B amplifier puts
>> out
>> > > > warms
>> > > > > up the oil in the Heath Kit Cantenna.
>> > > > >
>> > > > > I get the same results on all bands unless the results are so
>> subtle
>> > > > that I
>> > > > > have not noticed them.
>> > > > >
>> > > > > 1. I get a nice, rather sharp dip in the plate current.
>> > > > >
>> > > > > 2. Load capacitor all the way counter cockwise for maximum RF
>> output.
>> > > > >
>> > > > > 3. Just 300 - 400 watts.
>> > > > >
>> > > > >
>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <k4oah@...>
>> > wrote:
>> > > > >
>> > > > >>

>> > > > >> Michael -
>> > > > >>
>> > > > >> OK. It sure acts like there is no load past the wattmeter,
>> > > > >> except
>> > for
>> > > > > the
>> > > > >> minimal reflected power.
>> > > > >>
>> > > > >> I agree that it's unlikely that both caps would fail, and a
>> > > > >> single
>> > cap
>> > > > >> would work fine on the
>> > > > >> higher bands, especially.
>> > > > >>
>> > > > >> Does it change on different bands??
>> > > > >>
>> > > > >> 73, Garey - K4OAH
>> > > > >> Glen Allen, VA
>> > > > >>
>> > > > >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> > > > >> and TR-4/C Service Supplement CDs
>> > > > >> <www.k4oah.com>;
>> > > > >>
>> > > > >> Michael Engstrom wrote:
>> > > > >>> Garey-
>> > > > >>>
>> > > > >>> Since there are two doorknob caps in parallel, I pulled one out
>> at
>> > a
>> > > > > time
>> > > > >>> leaving the other one in place to check for any change ... the
>> > result:
>> > > > > No
>> > > > >>> change. I wouldn't think both would fail at the same time.
>> > > > >>>
>> > > > >>> It seems like I'm missing something obvious.
>> > > > >>>
>> > > > >>> I use the cantenna, connecting cables and an external watt
>> > > > >>> meter
>> > > > >> frequently
>> > > > >>> with various amplifiers, don't suspect anything there.
>> > > > >>> Thank you for your ideas.
>> > > > >>>
>> > > > >>> I'll keep plugging away.
>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...>
>> > wrote:
>> > > > >>>
>> > > > >>>> Michael -
>> > > > >>>>
>> > > > >>>> When you hear hoofbeats, think horses, not zebras!!

>> > > > >>>>
>> > > > >>>> Have you confirmed the cable from the wattmeter to the dummy
>> > load???
>> > > > >> Check
>> > > > >>>> at the wattmeter
>> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
>> sounds
>> > like
>> > > > > >> no
>> > > > >>>> antenna past the
>> > > > >>>> wattmeter..... You could also connect the cable from the
>> > > > >>>> amp
>> > to
>> > > > > the
>> > > > >>>> wattmeter directly to
>> > > > >>>> the dummy load.
>> > > > >>>>
>> > > > >>>> I've never seen this happen, so not sure how it would present,
>> > but it
>> > > > > >> sure
>> > > > >>>> appears that C43 or
>> > > > >>>> C44 has opened. The doorknob caps are chosen for their ability
>> to
>> > > > > handle
>> > > > >>>> the very high RF
>> > > > >>>> currents at this point as much as their high voltage
>> > capabilities. I
>> > > > > >> would
>> > > > >>>> remove those caps
>> > > > >>>> and check them for capacitance.
>> > > > >>>>
>> > > > >>>> 73, Garey - K4OAH
>> > > > >>>> Glen Allen, VA
>> > > > >>>>
>> > > > >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> > > > >>>> and TR-4/C Service Supplement CDs
>> > > > >>>> <www.k4oah.com>;
>> > > > >>>>
>> > > > >>>> Michael Engstrom wrote:
>> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a few
>> watts
>> > > > >>>>> reflected. The load capacitor is all tied together and
>> > > > >>>>> there's
>> an
>> > > > > extra
>> > > > >>>> cap
>> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
>> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey
>> > > > >>>>> Barrell"<k4oah@...>
>> > > > > wrote:

>> > > > >>>>>
>> > > > >>>>>> OK. Well the measurements you have are exactly what you
>> > > > >>>>>> would
>> > see if
>> > > > >> the
>> > > > >>>>>> LOAD capacitor was
>> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD control
>> > reduces
>> > > > the
>> > > > >>>> Grid
>> > > > >>>>>> current as the PLATE
>> > > > >>>>>> current increases. Is it the same on more than one band?? Is
>> the
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>> > > > >>>> dip
>> > > > >>>>>> very sharp??
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>> > > > >>>>>> What does the L-4B Wattmeter show, Forward or Reflected??
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>> > > > >>>> seen
>> > > > >>>>>> one go. It can't be
>> > > > >>>>>> a component 'shorting' the output as you have plenty of
>> > > > >>>>>> power
>> > to fry
>> > > > >>>>>> anything across the
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>> > > > >>>>>>
>> > > > >>>>>> Surplus Sales of Nebraska has a nice selection of doorknob
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>> > > > >>>>>> 73, Garey - K4OAH
>> > > > >>>>>> Glen Allen, VA
>> > > > >>>>>>
>> > > > >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> > > > >>>>>> and TR-4/C Service Supplement CDs
>> > > > >>>>>> <www.k4oah.com>;
>> > > > >>>>>>
>> > > > >>>>>> Michael Engstrom wrote:

>> > > > >>>>>>> Thanks Garey,
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>> > > > >>>>>>> Confirmed. Its clean, smooth turning and free of dust.
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>> > > > [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20630. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 20:37:45 UTC
From: w7fe
Topic: 20499 Message: 20630

P.S to my previous post:

Step 2 may require that you use a matching network/transmatch/"tuner"
between your exciter and the connection point I suggested. The impedance at
that point is likely beyond what your exciter will properly load.

Stu

----- Original Message -----
From: "w7fe" <w7fe@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 01, 2014 12:55 PM
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> OK, how about this?
>
> Step 1: First isolate and check the loading capacitor with a capacitance
> meter to verify that each section produces the correct capacitance change
> when rotated. If OK, restore the connections and go to step 2.
>
> Step 2: Lift the connection from the C22-C24 junction to the tube
> filaments.
> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
> capacitor to that point and put a PL-259 at the other end. Connect it to
> the exciter and operate the amplifier, thereby either eliminating or
> exposing the input circuitry as the problem area.
>
> Step 3: Obviously if it works correctly with this setup, the problem will
> be
> at least isolated to components in the input or ALC circuitry. OTOH, if it
> continues to produce similar goofy results, there are at least a lot fewer
> components to suspect. I'd start with checking capacitance of each of the
> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.
>
> Step 4 (grasping at straws): Perhaps there is a possibility of center
> conductor migration in any co-ax interconnections within the amplifier
> which
> are routed around a tight radius (if there are any). While this condition
> may not produce a short to the shield, the impedance hump at that point
> might be enough to cause tuning issues.
>
> 73 de Stu, W7FE
>
> ----- Original Message -----
> From: "Michael Engstrom" <michael.engstrom.73@...>
> To: <DrakeRadio@yahoogroups.com>

> Sent: Wednesday, April 30, 2014 3:58 PM
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
>
>> Copy that. Yes filaments.
>>
>> Thank you for your thoughts.
>> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
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>>> I believe "cathodes" in this instance means filament. The 3-500 series
>>> is
>>> not indirectly heated and thus has no cathode per se.
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>>> From: Michael Engstrom <michael.engstrom.73@...>
>>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>>> Sent: Wed, Apr 30, 2014 3:27 pm
>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
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>>> Chris -
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>>> The only modifications this amplifier has is the surge protector and
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>>> key mods from Harbach electronics. Removing the surge protector produced
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>>> I don't have a schematic in front of me so I'm going from memory at this
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>>> When the amplifier is keyed, the cathodes become common to the grounded
>>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the grids
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>>> > > > > Really strange behavior... Sounds exactly like what happens if the
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>>> > > > > control is fully CCW,
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>>> > > > > I'm assuming the PLATE current you are seeing is consistent with
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>>> > > > No
>>> > > > >>> change. I wouldn't think both would fail at the same time.
>>> > > > >>>
>>> > > > >>> It seems like I'm missing something obvious.
>>> > > > >>>
>>> > > > >>> I use the cantenna, connecting cables and an external watt
>>> > > > >>> meter
>>> > > > >> frequently
>>> > > > >>> with various amplifiers, don't suspect anything there.
>>> > > > >>> Thank you for your ideas.
>>> > > > >>>
>>> > > > >>> I'll keep plugging away.
>>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<k4oah@...>
>>> > wrote:
>>> > > > >>>
>>> > > > >>>> Michael -
>>> > > > >>>>
>>> > > > >>>> When you hear hoofbeats, think horses, not zebras!!
>>> > > > >>>>
>>> > > > >>>> Have you confirmed the cable from the wattmeter to the dummy
>>> > load???
>>> > > > >> Check
>>> > > > >>>> at the wattmeter
>>> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
>>> sounds
>>> > like
>>> > > > >> no
>>> > > > >>>> antenna past the
>>> > > > >>>> wattmeter..... You could also connect the cable from the
>>> > > > >>>> amp
>>> > to
>>> > > > the
>>> > > > >>>> wattmeter directly to
>>> > > > >>>> the dummy load.
>>> > > > >>>>
>>> > > > >>>> I've never seen this happen, so not sure how it would
>>> > > > >>>> present,
>>> > but it
>>> > > > >> sure
>>> > > > >>>> appears that C43 or
>>> > > > >>>> C44 has opened. The doorknob caps are chosen for their
>>> > > > >>>> ability
>>> to
>>> > > > handle
>>> > > > >>>> the very high RF

>>> > > > >>>> currents at this point as much as their high voltage
>>> > capabilities. I
>>> > > > >> would
>>> > > > >>>> remove those caps
>>> > > > >>>> and check them for capacitance.
>>> > > > >>>>
>>> > > > >>>> 73, Garey - K4OAH
>>> > > > >>>> Glen Allen, VA
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>>> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a few
>>> watts
>>> > > > >>>>> reflected. The load capacitor is all tied together and
>>> > > > >>>>> there's
>>> an
>>> > > > extra
>>> > > > >>>> cap
>>> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
>>> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey
>>> > > > >>>>> Barrell"<k4oah@...>
>>> > > > wrote:
>>> > > > >>>>>
>>> > > > >>>>>> OK. Well the measurements you have are exactly what you
>>> > > > >>>>>> would
>>> > see if
>>> > > > >> the
>>> > > > >>>>>> LOAD capacitor was
>>> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD control
>>> > reduces
>>> > > > the
>>> > > > >>>> Grid
>>> > > > >>>>>> current as the PLATE
>>> > > > >>>>>> current increases. Is it the same on more than one band??
>>> > > > >>>>>> Is
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>>> > > > PLATE
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>>> I've
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>>> > > > >>>>>> a component 'shorting' the output as you have plenty of
>>> > > > >>>>>> power
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>>> > > > >>>>>>> At this point I'm thinking coupling to the tank circuit.
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>>> > > > >>>>>>> First I need to dig in some old boxes.
>>> > > > >>>>>>>
>>> > > > >>>>>>> Mike. AA7WM
>>> > > > >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<
>>> k4oah@...>
>>> > > > >> wrote:
>>> > > > >>>>>>>> Michael -
>>> > > > >>>>>>>>
>>> > > > >>>>>>>> Did you confirm that the LOAD capacitor is turning when
>>> > > > >>>>>>>> you
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>> Yahoo Groups Links
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20631. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 20:50:37 UTC
From: Michael Engstrom
Topic: 20499 Message: 20631

Thank you Stu. A lot of really good ideas to implement. I need to up my troubleshooting equipment with a capacitor tester.

Meantime... I keep thinking:

What would cause those tubes to draw so much grid current with only 5 - 10 watts of drive?

No amplifier I have ever come across would do that unless there was no or low plate voltage. But the arithmetic proves I have plate voltage.

If we could answer this question:

What would cause those tubes to draw so much grid current with only 5 - 10 watts of drive?

the problem may be solved...
On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:

>
>
> P.S to my previous post:
>
> Step 2 may require that you use a matching network/transmatch/"tuner"
> between your exciter and the connection point I suggested. The impedance
> at
> that point is likely beyond what your exciter will properly load.
>
> Stu
>
> ----- Original Message -----
> From: "w7fe" <w7fe@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Thursday, May 01, 2014 12:55 PM
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> > OK, how about this?
> >
> > Step 1: First isolate and check the loading capacitor with a capacitance
> > meter to verify that each section produces the correct capacitance change
> > when rotated. If OK, restore the connections and go to step 2.
> >
> > Step 2: Lift the connection from the C22-C24 junction to the tube
> > filaments.
> > Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
> > capacitor to that point and put a PL-259 at the other end. Connect it to
> > the exciter and operate the amplifier, thereby either eliminating or

> > exposing the input circuitry as the problem area.
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> > Step 3: Obviously if it works correctly with this setup, the problem
> will
> > be
> > at least isolated to components in the input or ALC circuitry. OTOH, if
> it
> > continues to produce similar goofy results, there are at least a lot
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> > components to suspect. I'd start with checking capacitance of each of the
> > 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.
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> > Step 4 (grasping at straws): Perhaps there is a possibility of center
> > conductor migration in any co-ax interconnections within the amplifier
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> > are routed around a tight radius (if there are any). While this condition
> > may not produce a short to the shield, the impedance hump at that point
> > might be enough to cause tuning issues.
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> > 73 de Stu, W7FE
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> > From: "Michael Engstrom" <michael.engstrom.73@...>
> > To: <DrakeRadio@yahoogroups.com>
> > Sent: Wednesday, April 30, 2014 3:58 PM
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> >> Copy that. Yes filaments.
> >>
> >> Thank you for your thoughts.
> >> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
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> >>> I believe "cathodes" in this instance means filament. The 3-500 series
> >>> is
> >>> not indirectly heated and thus has no cathode per se.
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> >>> -----Original Message-----
> >>> From: Michael Engstrom <michael.engstrom.73@...>
> >>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> >>> Sent: Wed, Apr 30, 2014 3:27 pm
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> >>> Thank you for your input Chris.
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> >>> > > The answer must be resting somewhere within the excessive grid
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> >>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
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> >>> > > >
> >>> > > > Really strange behavior... Sounds exactly like what happens if
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> >>> LOAD
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> >>> > > > and reducing the LOAD capacitance should cause the PLATE current
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> >>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <
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> >>> > > > >> frequently
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> >>> > > > >>> Thank you for your ideas.
> >>> > > > >>>
> >>> > > > >>> I'll keep plugging away.
> >>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<
> k4oah@...>
> >>> > wrote:

> >>> > > > >>>
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> >>> > > > >>>>
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> >>> > > > >>>>>> Are
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> >>> > > > >>>>>>> At this point I'm thinking coupling to the tank circuit.
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> >>> > > > >
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> >>> > > > [Non-text portions of this message have been removed]
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> >> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20632. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 21:39:13 UTC
From: Garey Barrell
Topic: 20499 Message: 20632

The explanation for the Grid current is that power is going into the tubes, but not being coupled out. For an as yet undetermined reason, you have a couple of very large diode rectifiers with an input network that matches them to a 50 ohm input. So the RF is 'detected'
and passed to ground, displayed as Grid current.

This would normally indicate a mismatch on the output network, and as a result not coupling power to the load.

This is normally the result of no Plate voltage, an open DC block/coupling cap between the tube
Plates and the Output matching network.

If you had a return loss bridge, you could connect a 2-2.5k resistor from the DC block cap to
ground, (disconnecting the tube Plate caps or removing the caps,) and then apply RF at 50 ohms
through a return loss bridge to the OUTPUT antenna connector and see if you could adjust the
PLATE and LOAD caps for maximum return loss. If you have a big enough resistor, you could actually drive RF from your transmitter and adjust for minimum reflected power.

I still think we're missing something obvious, but I'm #&^$^% if "I" can see it from here.! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Michael Engstrom wrote:
> Thank you Stu. A lot of really good ideas to implement. I need to up my
> troubleshooting equipment with a capacitor tester.
>
> Meantime... I keep thinking:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
> watts of drive?
>
> No amplifier I have ever come across would do that unless there was no or
> low plate voltage. But the arithmetic proves I have plate voltage.
>
> If we could answer this question:
>
> What would cause those tubes to draw so much grid current with only 5 - 10

> watts of drive?
>
> the problem may be solved...
> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
>
>>
>> P.S to my previous post:
>>
>> Step 2 may require that you use a matching network/transmatch/"tuner"
>> between your exciter and the connection point I suggested. The impedance
>> at
>> that point is likely beyond what your exciter will properly load.
>>
>> Stu
>>
>> ----- Original Message -----
>> From: "w7fe" <w7fe@...>
>> To: <DrakeRadio@yahoogroups.com>
>> Sent: Thursday, May 01, 2014 12:55 PM
>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>>
>>> OK, how about this?
>>>
>>> Step 1: First isolate and check the loading capacitor with a capacitance
>>> meter to verify that each section produces the correct capacitance change
>>> when rotated. If OK, restore the connections and go to step 2.
>>>
>>> Step 2: Lift the connection from the C22-C24 junction to the tube
>>> filaments.
>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>>> capacitor to that point and put a PL-259 at the other end. Connect it to
>>> the exciter and operate the amplifier, thereby either eliminating or
>>> exposing the input circuitry as the problem area.
>>>
>>> Step 3: Obviously if it works correctly with this setup, the problem
>> will
>>> be
>>> at least isolated to components in the input or ALC circuitry. OTOH, if
>> it
>>> continues to produce similar goofy results, there are at least a lot
>> fewer
>>> components to suspect. I'd start with checking capacitance of each of the
>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.
>>>
>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
>>> conductor migration in any co-ax interconnections within the amplifier
>>> which
>>> are routed around a tight radius (if there are any). While this condition
>>> may not produce a short to the shield, the impedance hump at that point
>>> might be enough to cause tuning issues.

```
>>>
>>> 73 de Stu, W7FE
>>>
>>>
```

20633. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 21:44:58 UTC
From: Paul Dulaff
Topic: 20499 Message: 20633

Mike

You seem convinced that the grid current metering circuit is reporting correctly.
Did you already check it calibration ?

Paul - WB2NMI

----- Original Message -----
From: Michael Engstrom <michael.engstrom.73@...m>
To: DrakeRadio@yahoogroups.com
Sent: Thu, 01 May 2014 16:50:37 -0400 (EDT)
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Thank you Stu. A lot of really good ideas to implement. I need to up my

troubleshooting equipment with a capacitor tester.

Meantime... I keep thinking:

What would cause those tubes to draw so much grid current with only 5 - 10

watts of drive?

No amplifier I have ever come across would do that unless there was no or

low plate voltage. But the arithmetic proves I have plate voltage.

If we could answer this question:

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the problem may be solved...

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> between your exciter and the connection point I suggested. The impedance

> at

> that point is likely beyond what your exciter will properly load.

>

> Stu

>

> ----- Original Message -----

> From: "w7fe" <w7fe@...>

> To: <DrakeRadio@yahoogroups.com>

> Sent: Thursday, May 01, 2014 12:55 PM

> Subject: Re: [DrakeRadio] L4B - low output with new tubes.

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> > 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.

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> > conductor migration in any co-ax interconnections within the amplifier

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> > may not produce a short to the shield, the impedance hump at that point

> > might be enough to cause tuning issues.

> >

> > 73 de Stu, W7FE

> >

> > ----- Original Message -----

> > From: "Michael Engstrom" <michael.engstrom.73@...>

> > To: <DrakeRadio@yahoogroups.com>

> > Sent: Wednesday, April 30, 2014 3:58 PM

> > Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> >

> >

> >> Copy that. Yes filaments.

> >>

> >> Thank you for your thoughts.

> >> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:

> >>

> >>>

> >>>

> >>> I believe "cathodes" in this instance means filament. The 3-500 series

> >>> is

> >>> not indirectly heated and thus has no cathode per se.

> >>>

> >>> -----Original Message-----

> >>> From: Michael Engstrom <michael.engstrom.73@...>

> >>> To: DrakeRadio <DrakeRadio@yahoogroups.com>

> >>> Sent: Wed, Apr 30, 2014 3:27 pm

> >>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> >>>

> >>> Chris -

> >>>

> >>> Thank you for your input Chris.

> >>> The only modifications this amplifier has is the surge protector and

> >>> soft

> >>> key mods from Harbach electronics. Removing the surge protector

> produced

> >>> no

> >>> change in performance.

> >>> I don't have a schematic in front of me so I'm going from memory at

> this

> >>> point:

> >>>

> >>> When the amplifier is keyed, the cathodes become common to the grounded

> >>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the grids

> >>> are

> >>> allowed to conduct with adequate drive. When not keyed the cathodes

> >>> receive

> >>> +120 volts from the T/R relay and power supply effectively cutting off

> >>> all

> >>> plate and grid current .

> >>> On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:

> >>>

> >>> >

> >>> >

> >>> > Are you sure someone didn't attempt to modify that amp for class B or

> >>> > C?

> >>> > If successful one would expect more power out, but this might explain

> >>> > the

> >>> > low drive required (20w you said?) to obtain the specified grid

> >>> > current.

> >>> >

> >>> > Just a thought

> >>> >

> >>> > Chris

> >>> >

> >>> > Sent from my outdated iPhone wireless thingy

> >>> >

> >>> > On Apr 30, 2014, at 1:45 PM, Michael Engstrom <

> >>> > michael.engstrom.73@...> wrote:

> >>> >

> >>> > > Yes, except the grid current is way too high for such a low output.

> >>> > >

> >>> > > 230 ma grid current.

> >>> > > 250 ma plate current

> >>> > > 2500 plate voltage

> >>> > > 625 watt input

> >>> > > About 350 watts output

> >>> > > 56% efficiency

> >>> > >

> >>> > > The answer must be resting somewhere within the excessive grid

> >>> > > current

> >>> > > reading.

> >>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@mindspring.com>

> >>> wrote:

> >>> > >

> >>> > > >

> >>> > > > >

> >>> > > > > Really strange behavior... Sounds exactly like what happens if

> the

> >>> LOAD

> >>> > > > control is fully CCW,

> >>> > > > and reducing the LOAD capacitance should cause the PLATE current

> >>> > > > to

> >>> > > > increase. Just what I would

> >>> > > > expect if the LOAD variable was NOT turning.

> >>> > > > >

> >>> > > > > I'm assuming the PLATE current you are seeing is consistent with

> >>> > > > the

> >>> > > > amount of output power you

> >>> > > > are seeing.?? About 400 mA in CW??

> >>> > > > >

> >>> > > > > 73, Garey - K4OAH

> >>> > > > > Glen Allen, VA

> >>> > > > >

> >>> > > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

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> >>> > > > > <www.k4oah.com>;

> >>> > > > >

> >>> > > > Michael Engstrom wrote:

> >>> > > > > Garey -

> >>> > > > >

> >>> > > > > Wanted to let you know that the 400 Watts the L4B amplifier

> puts

> >>> out

> >>> > > > warms

> >>> > > > > up the oil in the Heath Kit Cantenna.

> >>> > > > >

> >>> > > > > I get the same results on all bands unless the results are so

> >>> subtle

> >>> > > > that I

> >>> > > > > have not noticed them.

> >>> > > > >

> >>> > > > > 1. I get a nice, rather sharp dip in the plate current.

> >>> > > > >

> >>> > > > > 2. Load capacitor all the way counter cockwise for maximum RF

> >>> output.

> >>> > > > >

> >>> > > > > 3. Just 300 - 400 watts.

> >>> > > > >

> >>> > > > >

> >>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <

> k4oah@...>

> >>> > wrote:

> >>> > > > >

> >>> > > > >>

> >>> > > > >> Michael -

> >>> > > > >>

> >>> > > > >> OK. It sure acts like there is no load past the wattmeter,

> >>> > > > >> except

> >>> > for

> >>> > > > the

> >>> > > > >> minimal reflected power.

> >>> > > > >>

> >>> > > > >> I agree that it's unlikely that both caps would fail, and a

> >>> > > > >> single

> >>> > cap

> >>> > > > >> would work fine on the

> >>> > > > >> higher bands, especially.

> >>> > > > >>

> >>> > > > >> Does it change on different bands??

> >>> > > > >>

> >>> > > > >> 73, Garey - K4OAH

> >>> > > > >> Glen Allen, VA

> >>> > > > >>

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> >>> > > > >>

> >>> > > > >> Michael Engstrom wrote:

> >>> > > > >>> Garey-

> >>> > > > >>>

> >>> > > > >>> Since there are two doorknob caps in parallel, I pulled one

> >>> > > > >>> out

> >>> at

> >>> > a

> >>> > > > time

> >>> > > > >>> leaving the other one in place to check for any change ...

> the

> >>> > result:

> >>> > > > No

> >>> > > > >>> change. I wouldn't think both would fail at the same time.

> >>> > > > >>>

> >>> > > > >>> It seems like I'm missing something obvious.

> >>> > > > >>>

> >>> > > > >>> I use the cantenna, connecting cables and an external watt

> >>> > > > >>> meter

> >>> > > > >> frequently

> >>> > > > >>> with various amplifiers, don't suspect anything there.

> >>> > > > >>> Thank you for your ideas.

> >>> > > > >>>

> >>> > > > >>> I'll keep plugging away.

> >>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<

> k4oah@...>

> >>> > wrote:

> >>> > > > >>>

> >>> > > > >>>> Michael -

> >>> > > > >>>>

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> >>> > but it

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> >>> > > > >> the

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> >>> > > > the

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> >>> > > > >>>>>>>>

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> >>> > > > >>>>>>>> you

> >>> > turn

> >>> > > > the

> >>> > > > >>>>>> knob??

> >>> > > > >>>>>>>> 73, Garey - K4OAH

> >>> > > > >>>>>>>> Glen Allen, VA

> >>> > > > >>>>>>>>

> >>> > > > >>>>>>>>

> >>> > > >

> >>> > > >

> >>> > > >

> >>> > >

> >>> > > [Non-text portions of this message have been removed]

> >>> > >

> >>> > >

> >>> >

> >>> > [Non-text portions of this message have been removed]

> >>> >

> >>> >

> >>> >

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> >>> [Non-text portions of this message have been removed]

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> >>> [Non-text portions of this message have been removed]

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> >> [Non-text portions of this message have been removed]

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> >> Yahoo Groups Links

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> > Yahoo Groups Links

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[Non-text portions of this message have been removed]

20634. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 21:49:31 UTC
From: Garey Barrell
Topic: 20499 Message: 20634

I sure wish one of the amp experts that hang around here would pipe up!!!

I'll tell you what I would do if it was MY amplifier.

I'd connect a short piece of wire from _all four_ Grid pins to the chassis, and then apply drive. Leave all the other stuff on there.

These tubes are known to develop 'open circuits' inside the tube pins, external to the envelope. IF ONE tube had _ONE_ OPEN Grid Pin, and it just happened to be the one that the RFC
to ground is NOT connected to, then that Grid is floating.

Far fetched?? Perhaps, but it COULD happen. Only ONE pin on ONE tube has to be OPEN.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Garey Barrell wrote:
> The explanation for the Grid current is that power is going into the tubes, but not being
> coupled out. For an as yet undetermined reason, you have a couple of very large diode
> rectifiers with an input network that matches them to a 50 ohm input. So the RF is 'detected'
> and passed to ground, displayed as Grid current.
>
> This would normally indicate a mismatch on the output network, and as a result not coupling
> power to the load.
>
> This is normally the result of no Plate voltage, an open DC block/coupling cap between the
> tube Plates and the Output matching network.
>
> If you had a return loss bridge, you could connect a 2-2.5k resistor from the DC block cap to
> ground, (disconnecting the tube Plate caps or removing the caps,) and then apply RF at 50 ohms
> through a return loss bridge to the OUTPUT antenna connector and see if you could adjust the
> PLATE and LOAD caps for maximum return loss. If you have a big enough resistor, you could
> actually drive RF from your transmitter and adjust for minimum reflected power.
>
> I still think we're missing something obvious, but I'm #&^$^% if "I" can see it from here.! :-)

>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
>> Thank you Stu. A lot of really good ideas to implement. I need to up my
>> troubleshooting equipment with a capacitor tester.
>>
>> Meantime... I keep thinking:
>>
>> What would cause those tubes to draw so much grid current with only 5 - 10
>> watts of drive?
>>
>> No amplifier I have ever come across would do that unless there was no or
>> low plate voltage. But the arithmetic proves I have plate voltage.
>>
>> If we could answer this question:
>>
>> What would cause those tubes to draw so much grid current with only 5 - 10
>> watts of drive?
>>
>> the problem may be solved...
>> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
>>
>>>
>>> P.S to my previous post:
>>>
>>> Step 2 may require that you use a matching network/transmatch/"tuner"
>>> between your exciter and the connection point I suggested. The impedance
>>> at
>>> that point is likely beyond what your exciter will properly load.
>>>
>>> Stu
>>>
>>> ----- Original Message -----
>>> From: "w7fe" <w7fe@...>
>>> To: <DrakeRadio@yahoogroups.com>
>>> Sent: Thursday, May 01, 2014 12:55 PM
>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>>>
>>>> OK, how about this?
>>>>
>>>> Step 1: First isolate and check the loading capacitor with a capacitance
>>>> meter to verify that each section produces the correct capacitance change
>>>> when rotated. If OK, restore the connections and go to step 2.
>>>>

>>>> Step 2: Lift the connection from the C22-C24 junction to the tube
>>>> filaments.
>>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>>>> capacitor to that point and put a PL-259 at the other end. Connect it to
>>>> the exciter and operate the amplifier, thereby either eliminating or
>>>> exposing the input circuitry as the problem area.
>>>>
>>>> Step 3: Obviously if it works correctly with this setup, the problem
>>> will
>>>> be
>>>> at least isolated to components in the input or ALC circuitry. OTOH, if
>>> it
>>>> continues to produce similar goofy results, there are at least a lot
>>> fewer
>>>> components to suspect. I'd start with checking capacitance of each of the
>>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.
>>>>
>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
>>>> conductor migration in any co-ax interconnections within the amplifier
>>>> which
>>>> are routed around a tight radius (if there are any). While this condition
>>>> may not produce a short to the shield, the impedance hump at that point
>>>> might be enough to cause tuning issues.
>>>>
>>>> 73 de Stu, W7FE
>>>>
>>>>
>

20635. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 21:54:08 UTC
From: Michael Engstrom
Topic: 20499 Message: 20635

Thanks Paul, I need to calibrate the grid current meter so I can check it
off for certain.
On May 1, 2014 2:45 PM, "Paul Dulaff" <pdulaff@embarqmail.com> wrote:

>
>
> Mike
>
> You seem convinced that the grid current metering circuit is reporting
> correctly.
> Did you already check it calibration ?
>
> Paul - WB2NMI
>
> ----- Original Message -----
> From: Michael Engstrom <michael.engstrom.73@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Thu, 01 May 2014 16:50:37 -0400 (EDT)
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> Thank you Stu. A lot of really good ideas to implement. I need to up my
>
> troubleshooting equipment with a capacitor tester.
>
> Meantime... I keep thinking:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
>
> watts of drive?
>
> No amplifier I have ever come across would do that unless there was no or
>
> low plate voltage. But the arithmetic proves I have plate voltage.
>
> If we could answer this question:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
>
> watts of drive?
>
> the problem may be solved...
>
> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
>
> >

>
> >
>
> > P.S to my previous post:
>
> >
>
> > Step 2 may require that you use a matching network/transmatch/"tuner"
>
> > between your exciter and the connection point I suggested. The impedance
>
> > at
>
> > that point is likely beyond what your exciter will properly load.
>
> >
>
> > Stu
>
> >
>
> > ----- Original Message -----
>
> > From: "w7fe" <w7fe@...>
>
> > To: <DrakeRadio@yahoogroups.com>
>
> > Sent: Thursday, May 01, 2014 12:55 PM
>
> > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> >
>
> > > OK, how about this?
>
> > >
>
> > > Step 1: First isolate and check the loading capacitor with a
> capacitance
>
> > > meter to verify that each section produces the correct capacitance
> change
>
> > > when rotated. If OK, restore the connections and go to step 2.
>
> > >
>
> > > Step 2: Lift the connection from the C22-C24 junction to the tube
>
> > > filaments.

>
> > > Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>
> > > capacitor to that point and put a PL-259 at the other end. Connect it
> to
>
> > > the exciter and operate the amplifier, thereby either eliminating or
>
> > > exposing the input circuitry as the problem area.
>
> > >
>
> > > Step 3: Obviously if it works correctly with this setup, the problem
>
> > will
>
> > > be
>
> > > at least isolated to components in the input or ALC circuitry. OTOH, if
>
> > it
>
> > > continues to produce similar goofy results, there are at least a lot
>
> > fewer
>
> > > components to suspect. I'd start with checking capacitance of each of
> the
>
> > > 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC
> 5.
>
> > >
>
> > > Step 4 (grasping at straws): Perhaps there is a possibility of center
>
> > > conductor migration in any co-ax interconnections within the amplifier
>
> > > which
>
> > > are routed around a tight radius (if there are any). While this
> condition
>
> > > may not produce a short to the shield, the impedance hump at that point
>
> > > might be enough to cause tuning issues.
>
> > >
>
> > > 73 de Stu, W7FE

>
> > >
>
> > > ----- Original Message -----
>
> > > From: "Michael Engstrom" <michael.engstrom.73@...>
>
> > > To: <DrakeRadio@yahoogroups.com>
>
> > > Sent: Wednesday, April 30, 2014 3:58 PM
>
> > > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> > > >
>
> > > >
>
> > > >> Copy that. Yes filaments.
>
> > > >>
>
> > > >> Thank you for your thoughts.
>
> > > >> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
>
> > > >>
>
> > > >>>
>
> > > >>>
>
> > > >>> I believe "cathodes" in this instance means filament. The 3-500
> series
>
> > > >>> is
>
> > > >>> not indirectly heated and thus has no cathode per se.
>
> > > >>>
>
> > > >>> -----Original Message-----
>
> > > >>> From: Michael Engstrom <michael.engstrom.73@...>
>
> > > >>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>
> > > >>> Sent: Wed, Apr 30, 2014 3:27 pm
>
> > > >>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>

> > >>>
>
> > >>> Chris -
>
> > >>>
>
> > >>> Thank you for your input Chris.
>
> > >>> The only modifications this amplifier has is the surge protector and
>
> > >>> soft
>
> > >>> key mods from Harbach electronics. Removing the surge protector
>
> > produced
>
> > >>> no
>
> > >>> change in performance.
>
> > >>> I don't have a schematic in front of me so I'm going from memory at
>
> > this
>
> > >>> point:
>
> > >>>
>
> > >>> When the amplifier is keyed, the cathodes become common to the
> grounded
>
> > >>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the
> grids
>
> > >>> are
>
> > >>> allowed to conduct with adequate drive. When not keyed the cathodes
>
> > >>> receive
>
> > >>> +120 volts from the T/R relay and power supply effectively cutting
> off
>
> > >>> all
>
> > >>> plate and grid current .
>
> > >>> On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:
>
> > >>>

>
> > >>> >
>
> > >>> >
>
> > >>> > Are you sure someone didn't attempt to modify that amp for class B
> or
>
> > >>> > C?
>
> > >>> > If successful one would expect more power out, but this might
> explain
>
> > >>> > the
>
> > >>> > low drive required (20w you said?) to obtain the specified grid
>
> > >>> > current.
>
> > >>> >
>
> > >>> > Just a thought
>
> > >>> >
>
> > >>> > Chris
>
> > >>> >
>
> > >>> > Sent from my outdated iPhone wireless thingy
>
> > >>> >
>
> > >>> > On Apr 30, 2014, at 1:45 PM, Michael Engstrom <
>
> > >>> > michael.engstrom.73@...> wrote:
>
> > >>> >
>
> > >>> > > Yes, except the grid current is way too high for such a low
> output.
>
> > >>> > >
>
> > >>> > > 230 ma grid current.
>
> > >>> > > 250 ma plate current
>
> > >>> > > 2500 plate voltage
>

> > >>> > > 625 watt input
>
> > >>> > > About 350 watts output
>
> > >>> > > 56% efficiency
>
> > >>> > >
>
> > >>> > > The answer must be resting somewhere within the excessive grid
>
> > >>> > > current
>
> > >>> > > reading.
>
> > >>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
>
> > >>> wrote:
>
> > >>> > >
>
> > >>> > > >
>
> > >>> > > > Really strange behavior... Sounds exactly like what happens if
>
> > the
>
> > >>> LOAD
>
> > >>> > > > control is fully CCW,
>
> > >>> > > > and reducing the LOAD capacitance should cause the PLATE
> current
>
> > >>> > > > to
>
> > >>> > > > increase. Just what I would
>
> > >>> > > > expect if the LOAD variable was NOT turning.
>
> > >>> > > >
>
> > >>> > > > I'm assuming the PLATE current you are seeing is consistent
> with
>
> > >>> > > > the
>
> > >>> > > > amount of output power you
>

> > >>> > > > are seeing.?? About 400 mA in CW??
>
> > >>> > > >
>
> > >>> > > > 73, Garey - K4OAH
>
> > >>> > > > Glen Allen, VA
>
> > >>> > > >
>
> > >>> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > and TR-4/C Service Supplement CDs
>
> > >>> > > > <www.k4oah.com>;
>
> > >>> > > >
>
> > >>> > > > Michael Engstrom wrote:
>
> > >>> > > > > Garey -
>
> > >>> > > > >
>
> > >>> > > > > Wanted to let you know that the 400 Watts the L4B amplifier
>
> > puts
>
> > >>> out
>
> > >>> > > > warms
>
> > >>> > > > > up the oil in the Heath Kit Cantenna.
>
> > >>> > > > >
>
> > >>> > > > > I get the same results on all bands unless the results are so
>
> > >>> subtle
>
> > >>> > > > that I
>
> > >>> > > > > have not noticed them.
>
> > >>> > > > >
>
> > >>> > > > > 1. I get a nice, rather sharp dip in the plate current.
>
> > >>> > > > >
>

> > >>> > > > > 2. Load capacitor all the way counter cockwise for maximum RF
>
> > >>> output.
>
> > >>> > > > >
>
> > >>> > > > > 3. Just 300 - 400 watts.
>
> > >>> > > > >
>
> > >>> > > > >
>
> > >>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <
>
> > k4oah@...>
>
> > >>> > wrote:
>
> > >>> > > > >
>
> > >>> > > > >>
>
> > >>> > > > >> Michael -
>
> > >>> > > > >>
>
> > >>> > > > >> OK. It sure acts like there is no load past the wattmeter,
>
> > >>> > > > >> except
>
> > >>> > for
>
> > >>> > > > the
>
> > >>> > > > >> minimal reflected power.
>
> > >>> > > > >>
>
> > >>> > > > >> I agree that it's unlikely that both caps would fail, and a
>
> > >>> > > > >> single
>
> > >>> > cap
>
> > >>> > > > >> would work fine on the
>
> > >>> > > > >> higher bands, especially.
>
> > >>> > > > >>
>
>

> > >>> > > > >> Does it change on different bands??
>
> > >>> > > > >>
>
> > >>> > > > >> 73, Garey - K4OAH
>
> > >>> > > > >> Glen Allen, VA
>
> > >>> > > > >>
>
> > >>> > > > >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > >> and TR-4/C Service Supplement CDs
>
> > >>> > > > >> <www.k4oah.com>;
>
> > >>> > > > >>
>
> > >>> > > > >> Michael Engstrom wrote:
>
> > >>> > > > >>> Garey-
>
> > >>> > > > >>>
>
> > >>> > > > >>> Since there are two doorknob caps in parallel, I pulled one
>
> > >>> > > > >>> out
>
> > >>> at
>
> > >>> > a
>
> > >>> > > > time
>
> > >>> > > > >>> leaving the other one in place to check for any change ...
>
> > the
>
> > >>> > result:
>
> > >>> > > > No
>
> > >>> > > > >>> change. I wouldn't think both would fail at the same time.
>
> > >>> > > > >>>
>
> > >>> > > > >>> It seems like I'm missing something obvious.
>
> > >>> > > > >>>
>

> > >>> > > > >>> I use the cantenna, connecting cables and an external watt
>
> > >>> > > > >>> meter
>
> > >>> > > > >> frequently
>
> > >>> > > > >>> with various amplifiers, don't suspect anything there.
>
> > >>> > > > >>> Thank you for your ideas.
>
> > >>> > > > >>>
>
> > >>> > > > >>> I'll keep plugging away.
>
> > >>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<
>
> > k4oah@...>
>
> > >>> > wrote:
>
> > >>> > > > >>>
>
> > >>> > > > >>>> Michael -
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> When you hear hoofbeats, think horses, not zebras!!
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> Have you confirmed the cable from the wattmeter to the
> dummy
>
> > >>> > load???
>
> > >>> > > > >> Check
>
> > >>> > > > >>>> at the wattmeter
>
> > >>> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
>
> > >>> sounds
>
> > >>> > like
>
> > >>> > > > >> no
>
> > >>> > > > >>>> antenna past the
>
> > >>> > > > >>>> wattmeter..... You could also connect the cable from

> the
>
> > >>> > > > >>>> amp
>
> > >>> > to
>
> > >>> > > > the
>
> > >>> > > > > >>>> wattmeter directly to
>
> > >>> > > > > >>>> the dummy load.
>
> > >>> > > > > >>>>
>
> > >>> > > > > >>>> I've never seen this happen, so not sure how it would
>
> > >>> > > > > >>>> present,
>
> > >>> > but it
>
> > >>> > > > > >> sure
>
> > >>> > > > > >>>> appears that C43 or
>
> > >>> > > > > >>>> C44 has opened. The doorknob caps are chosen for their
>
> > >>> > > > > >>>> ability
>
> > >>> to
>
> > >>> > > > handle
>
> > >>> > > > > >>>> the very high RF
>
> > >>> > > > > >>>> currents at this point as much as their high voltage
>
> > >>> > capabilities. I
>
> > >>> > > > > >> would
>
> > >>> > > > > >>>> remove those caps
>
> > >>> > > > > >>>> and check them for capacitance.
>
> > >>> > > > > >>>>
>
> > >>> > > > > >>>> 73, Garey - K4OAH
>
> > >>> > > > > >>>> Glen Allen, VA
>

> > >>> > > > >>>>
>
> > >>> > > > >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > >>>> and TR-4/C Service Supplement CDs
>
> > >>> > > > >>>> <www.k4oah.com>;
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> Michael Engstrom wrote:
>
> > >>> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a
> few
>
> > >>> watts
>
> > >>> > > > >>>>> reflected. The load capacitor is all tied together and
>
> > >>> > > > >>>>> there's
>
> > >>> an
>
> > >>> > > > extra
>
> > >>> > > > >>>> cap
>
> > >>> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
>
> > >>> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey
>
> > >>> > > > >>>>> Barrell"<k4oah@...>
>
> > >>> > > > wrote:
>
> > >>> > > > >>>>>
>
> > >>> > > > >>>>>> OK. Well the measurements you have are exactly what you
>
> > >>> > > > >>>>>> would
>
> > >>> > see if
>
> > >>> > > > >> the
>
> > >>> > > > >>>>>> LOAD capacitor was
>
> > >>> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD
> control
>

> > >>> > reduces
>
> > >>> > > > the
>
> > >>> > > > >>>> Grid
>
> > >>> > > > >>>>>> current as the PLATE
>
> > >>> > > > >>>>>> current increases. Is it the same on more than one
> band??
>
> > >>> > > > >>>>>> Is
>
> > >>> the
>
> > >>> > > > PLATE
>
> > >>> > > > >>>> dip
>
> > >>> > > > >>>>>> very sharp??
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> What does the L-4B Wattmeter show, Forward or
> Reflected??
>
> > >>> > > > >>>>>> Are
>
> > >>> > all
>
> > >>> > > > four
>
> > >>> > > > >>>>>> stators of the LOAD cap
>
> > >>> > > > >>>>>> tied together and to the 700 pF 'extra' cap on 80M?
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> I guess an open Plate Blocking cap could present that
> way,
>
> > >>> I've
>
> > >>> > > > never
>
> > >>> > > > >>>> seen
>
> > >>> > > > >>>>>> one go. It can't be
>
> > >>> > > > >>>>>> a component 'shorting' the output as you have plenty of

>
> > >>> > > > >>>>>> power
>
> > >>> > to fry
>
> > >>> > > > >>>>>> anything across the
>
> > >>> > > > >>>>>> output. Are you using a dummy load? Or a known 'matched'
>
> > >>> > antenna?
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Surplus Sales of Nebraska has a nice selection of
> doorknob
>
> > >>> caps.
>
> > >>> > > > Also
>
> > >>> > > > >>>>>> Max-Gain Systems of
>
> > >>> > > > >>>>>> Marietta, GA.
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> 73, Garey - K4OAH
>
> > >>> > > > >>>>>> Glen Allen, VA
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > >>>>>> and TR-4/C Service Supplement CDs
>
> > >>> > > > >>>>>> <www.k4oah.com>;
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Michael Engstrom wrote:
>
> > >>> > > > >>>>>>> Thanks Garey,
>
> > >>> > > > >>>>>>>
>
> > >>> > > > >>>>>>> Confirmed. Its clean, smooth turning and free of dust.
>
> > >>> > > > >>>>>>>
>

> > >>> > > > >>>>>>> At this point I'm thinking coupling to the tank
> circuit.
>
> > >>> > > > >>>>>>> All
>
> > >>> > that
>
> > >>> > > > >>>>>> potential
>
> > >>> > > > >>>>>>> energy... just can't get there... I'm not sure where to
>
> > >>> > > > >>>>>>> get
>
> > >>> > door
>
> > >>> > > > knob
>
> > >>> > > > >>>>>> caps.
>
> > >>> > > > >>>>>>> First I need to dig in some old boxes.
>
> > >>> > > > >>>>>>>
>
> > >>> > > > >>>>>>> Mike. AA7WM
>
> > >>> > > > >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<
>
> > >>> k4oah@...>
>
> > >>> > > > >> wrote:
>
> > >>> > > > >>>>>>>> Michael -
>
> > >>> > > > >>>>>>>>
>
> > >>> > > > >>>>>>>> Did you confirm that the LOAD capacitor is turning
> when
>
> > >>> > > > >>>>>>>> you
>
> > >>> > turn
>
> > >>> > > > the
>
> > >>> > > > >>>>>> knob??
>
> > >>> > > > >>>>>>>> 73, Garey - K4OAH
>
> > >>> > > > >>>>>>>> Glen Allen, VA
>

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> > >>> > > > >>>>>>>>
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20636. Re: [DrakeRadio] Re: TR7: replacing 2nd IF/Audio Board - I did it !

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 21:58:52 UTC
From: Jim Shorney
Topic: 20505 Message: 20636

I did the same, except I used BC549B. IIRC it was spec-ed slightly better than the 549C for noise.

73

-Jim
NU0C

On Thu, 01 May 2014 12:38:53 -0400, Joe Pyles wrote:

>On my TR7A and R7A I have replaced Q1113 (TR7A)
>and Q1110 (R7A) with a BC549C low noise
>transistor which helped the noise a little bit in the audio.
>
>73, Joe KC9LAD
>
>At 11:05 AM 5/1/2014, you wrote:
>>
>>
>>
>>
>>Ok, I did it
>>I replaced the 2nd IF board ver.1 of my TR-7
>>with a newer board ver.2 (that I got from a
>>second TR7 that I bought - for parts - at a very
>>low price). First, I replaced the 8 electrolytic
>>capacitors with fresh ones, then I modified the
>>PBT board by replacing/removing the two
>>resistors to adapt the BFO level (thanks
>>everybody for the hint). I finished the work
>>aligning the IFs and the AGC / S-meter circuit.
>>The board worked immediately, and my impression
>>is that the audio quality is better (ok, it
>>maybe a placebo effect :-)) also the action of the AGC seems to be smoother.
>>
>>
>>One thing that can be of general interest is
>>that on BOTH boards (i.e. the old ver. 1 and the
>>new ver. 2) I had to replace the same defective
>>(noisy) transistor Q1113 (2N3904), the
>>preamplifier in the audio stage. It causes a
>>continuous low-frequency rumble/crackling, that
>>is most audible when the RF gain is set at
>>minimum (i.e. completely CCW). The rumble level
>>was independent on the volume setting,

>>indicating that the problem was beyond the
>>volume pot. If you are experiencing something
>>like that on your TR7, you know who the culprit
>>is I wonder if this is something related only
>>to the AF stage, or it is a common problem with
>>aging 2N3904s . this wwould be a nightmare,
>>since Drake used A LOT of those transistors in the TR7
>>
>>
>>Again, thanks everybody for the hints and suggestions !
>>
>>
>>
>>73,
>>Michele
>>
>>
>>
>>[Non-text portions of this message have been removed]
>>
>>
>>
>>No virus found in this message.
>>Checked by AVG - <http://www.avg.com>www.avg.com
>>Version: 2014.0.4570 / Virus Database: 3931/7424 - Release Date: 05/01/14
>
>
>
>[Non-text portions of this message have been removed]
>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

20637. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 22:02:45 UTC
From: Paul Dulaff
Topic: 20499 Message: 20637

Garey

Wouldn't we see an offset (out of spec value) in the idling current of the amplifier if a grid is floating ?

May be easier to check if we use a DVM to look at voltages on all four pins and see if any are actually above ground with the amp idling, assuming the pin with the choke is open, the opposing pin would have potential to ground.

Paul - WB2NMI

----- Original Message -----
From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thu, 01 May 2014 17:49:31 -0400 (EDT)
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

I sure wish one of the amp experts that hang around here would pipe up!!!

I'll tell you what I would do if it was MY amplifier.

I'd connect a short piece of wire from _all four_ Grid pins to the chassis, and then apply

drive. Leave all the other stuff on there.

These tubes are known to develop 'open circuits' inside the tube pins, external to the

envelope. IF ONE tube had _ONE_ OPEN Grid Pin, and it just happened to be the one that the RFC

to ground is NOT connected to, then that Grid is floating.

Far fetched?? Perhaps, but it COULD happen. Only ONE pin on ONE tube has to be OPEN.

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs

<www.k4oah.com>

Garey Barrell wrote:

> The explanation for the Grid current is that power is going into the tubes, but not being

> coupled out. For an as yet undetermined reason, you have a couple of very large diode

> rectifiers with an input network that matches them to a 50 ohm input. So the RF is 'detected'

> and passed to ground, displayed as Grid current.

>

> This would normally indicate a mismatch on the output network, and as a result not coupling

> power to the load.

>

> This is normally the result of no Plate voltage, an open DC block/coupling cap between the

> tube Plates and the Output matching network.

>

> If you had a return loss bridge, you could connect a 2-2.5k resistor from the DC block cap to

> ground, (disconnecting the tube Plate caps or removing the caps,) and then apply RF at 50 ohms

> through a return loss bridge to the OUTPUT antenna connector and see if you could adjust the

> PLATE and LOAD caps for maximum return loss. If you have a big enough resistor, you could

> actually drive RF from your transmitter and adjust for minimum reflected power.

>

> I still think we're missing something obvious, but I'm #&^$^% if "I" can see it from here.! :-)

>

> 73, Garey - K4OAH

> Glen Allen, VA

>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

> and TR-4/C Service Supplement CDs

> <www.k4oah.com>

>

> Michael Engstrom wrote:

>> Thank you Stu. A lot of really good ideas to implement. I need to up my

>> troubleshooting equipment with a capacitor tester.

>>

>> Meantime... I keep thinking:

>>

>> What would cause those tubes to draw so much grid current with only 5 - 10

>> watts of drive?

>>

>> No amplifier I have ever come across would do that unless there was no or

>> low plate voltage. But the arithmetic proves I have plate voltage.

>>

>> If we could answer this question:

>>

>> What would cause those tubes to draw so much grid current with only 5 - 10

>> watts of drive?

>>

>> the problem may be solved...

>> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:

>>

>>>

>>> P.S to my previous post:

>>>

>>> Step 2 may require that you use a matching network/transmatch/"tuner"

>>> between your exciter and the connection point I suggested. The impedance

>>> at

>>> that point is likely beyond what your exciter will properly load.

>>>

>>> Stu

>>>

>>> ----- Original Message -----

>>> From: "w7fe" <w7fe@...>

>>> To: <DrakeRadio@yahoogroups.com>

>>> Sent: Thursday, May 01, 2014 12:55 PM

>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.

>>>

>>>> OK, how about this?

>>>>

>>>> Step 1: First isolate and check the loading capacitor with a capacitance

>>>> meter to verify that each section produces the correct capacitance change

>>>> when rotated. If OK, restore the connections and go to step 2.

>>>>

>>>> Step 2: Lift the connection from the C22-C24 junction to the tube

>>>> filaments.

>>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF

>>>> capacitor to that point and put a PL-259 at the other end. Connect it to

>>>> the exciter and operate the amplifier, thereby either eliminating or

>>>> exposing the input circuitry as the problem area.

>>>>

>>>> Step 3: Obviously if it works correctly with this setup, the problem

>>> will

>>>> be

>>>> at least isolated to components in the input or ALC circuitry. OTOH, if

>>> it

>>>> continues to produce similar goofy results, there are at least a lot

>>> fewer

>>>> components to suspect. I'd start with checking capacitance of each of the

>>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.

>>>>

>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center

>>>> conductor migration in any co-ax interconnections within the amplifier

>>>> which

>>>> are routed around a tight radius (if there are any). While this condition

>>>> may not produce a short to the shield, the impedance hump at that point

>>>> might be enough to cause tuning issues.

>>>>

>>>> 73 de Stu, W7FE

>>>>

>>>>

>

[Non-text portions of this message have been removed]

20638. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 22:07:30 UTC
From: w7fe
Topic: 20499 Message: 20638

Yeah, a C meter is very useful. Last month I bought a Chinese DMM which does AC/DC to 1000V/20A, R to 60 Meg, diode and transistor test, C from 40nF to 2000mF, F from 100Hz to 60MHz, and Temp -40 to 1000 deg C. Autoranging. data hold feature, overload protected, large LCD display, auto shutoff. Check eBay for Vichy VC99. *** $35.50 ***, free shipping, stocked in USA. Can't hardly go wrong , and it works FB.

Still cogitating on a logical answer to the high grid current with low drive enigma - so are a bunch of the other group members, I think. Say, I know a guy in San Diego who is an L-4B guru. Tom, W6KAN. You might email him directly at his arrl.net address. I'll try to get him to chime in on the group, too. If you hear from him first, say 'hi' from me.

73 de Stu, W7FE

----- Original Message -----
From: "Michael Engstrom" <michael.engstrom.73@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 01, 2014 1:50 PM
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> Thank you Stu. A lot of really good ideas to implement. I need to up my
> troubleshooting equipment with a capacitor tester.
>
> Meantime... I keep thinking:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
> watts of drive?
>
> No amplifier I have ever come across would do that unless there was no or
> low plate voltage. But the arithmetic proves I have plate voltage.
>
> If we could answer this question:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
> watts of drive?
>
> the problem may be solved...
> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
>
>>
>>
>> P.S to my previous post:
>>
>> Step 2 may require that you use a matching network/transmatch/"tuner"
>> between your exciter and the connection point I suggested. The impedance

>> at
>> that point is likely beyond what your exciter will properly load.
>>
>> Stu
>>
>> ----- Original Message -----
>> From: "w7fe" <w7fe@...>
>> To: <DrakeRadio@yahoogroups.com>
>> Sent: Thursday, May 01, 2014 12:55 PM
>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>>
>> > OK, how about this?
>> >
>> > Step 1: First isolate and check the loading capacitor with a
>> > capacitance
>> > meter to verify that each section produces the correct capacitance
>> > change
>> > when rotated. If OK, restore the connections and go to step 2.
>> >
>> > Step 2: Lift the connection from the C22-C24 junction to the tube
>> > filaments.
>> > Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>> > capacitor to that point and put a PL-259 at the other end. Connect it
>> > to
>> > the exciter and operate the amplifier, thereby either eliminating or
>> > exposing the input circuitry as the problem area.
>> >
>> > Step 3: Obviously if it works correctly with this setup, the problem
>> will
>> > be
>> > at least isolated to components in the input or ALC circuitry. OTOH, if
>> it
>> > continues to produce similar goofy results, there are at least a lot
>> fewer
>> > components to suspect. I'd start with checking capacitance of each of
>> > the
>> > 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC
>> > 5.
>> >
>> > Step 4 (grasping at straws): Perhaps there is a possibility of center
>> > conductor migration in any co-ax interconnections within the amplifier
>> > which
>> > are routed around a tight radius (if there are any). While this
>> > condition
>> > may not produce a short to the shield, the impedance hump at that point
>> > might be enough to cause tuning issues.
>> >
>> > 73 de Stu, W7FE
>> >
>> > ----- Original Message -----

>> > From: "Michael Engstrom" <michael.engstrom.73@...>
>> > To: <DrakeRadio@yahoogroups.com>
>> > Sent: Wednesday, April 30, 2014 3:58 PM
>> > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>> >
>> >
>> >> Copy that. Yes filaments.
>> >>
>> >> Thank you for your thoughts.
>> >> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
>> >>
>> >>>
>> >>>
>> >>> I believe "cathodes" in this instance means filament. The 3-500
>> >>> series
>> >>> is
>> >>> not indirectly heated and thus has no cathode per se.
>> >>>
>> >>> -----Original Message-----
>> >>> From: Michael Engstrom <michael.engstrom.73@...>
>> >>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> >>> Sent: Wed, Apr 30, 2014 3:27 pm
>> >>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>> >>>
>> >>> Chris -
>> >>>
>> >>> Thank you for your input Chris.
>> >>> The only modifications this amplifier has is the surge protector and
>> >>> soft
>> >>> key mods from Harbach electronics. Removing the surge protector
>> produced
>> >>> no
>> >>> change in performance.
>> >>> I don't have a schematic in front of me so I'm going from memory at
>> this
>> >>> point:
>> >>>
>> >>> When the amplifier is keyed, the cathodes become common to the
>> >>> grounded
>> >>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the
>> >>> grids
>> >>> are
>> >>> allowed to conduct with adequate drive. When not keyed the cathodes
>> >>> receive
>> >>> +120 volts from the T/R relay and power supply effectively cutting
>> >>> off
>> >>> all
>> >>> plate and grid current .
>> >>> On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:
>> >>>

>> >>> >
>> >>> >
>> >>> > Are you sure someone didn't attempt to modify that amp for class B
>> >>> > or
>> >>> > C?
>> >>> > If successful one would expect more power out, but this might
>> >>> > explain
>> >>> > the
>> >>> > low drive required (20w you said?) to obtain the specified grid
>> >>> > current.
>> >>> >
>> >>> > Just a thought
>> >>> >
>> >>> > Chris
>> >>> >
>> >>> > Sent from my outdated iPhone wireless thingy
>> >>> >
>> >>> > On Apr 30, 2014, at 1:45 PM, Michael Engstrom <
>> >>> > michael.engstrom.73@...> wrote:
>> >>> >
>> >>> > > Yes, except the grid current is way too high for such a low
>> >>> > > output.
>> >>> > >
>> >>> > > 230 ma grid current.
>> >>> > > 250 ma plate current
>> >>> > > 2500 plate voltage
>> >>> > > 625 watt input
>> >>> > > About 350 watts output
>> >>> > > 56% efficiency
>> >>> > >
>> >>> > > The answer must be resting somewhere within the excessive grid
>> >>> > > current
>> >>> > > reading.
>> >>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
>> >>> wrote:
>> >>> > >
>> >>> > > >
>> >>> > > >
>> >>> > > > Really strange behavior... Sounds exactly like what happens if
>> the
>> >>> LOAD
>> >>> > > > control is fully CCW,
>> >>> > > > and reducing the LOAD capacitance should cause the PLATE
>> >>> > > > current
>> >>> > > > to
>> >>> > > > increase. Just what I would
>> >>> > > > expect if the LOAD variable was NOT turning.
>> >>> > > >
>> >>> > > > I'm assuming the PLATE current you are seeing is consistent
>> >>> > > > with

>> >>> > > > the
>> >>> > > > amount of output power you
>> >>> > > > are seeing.?? About 400 mA in CW??
>> >>> > > >
>> >>> > > > 73, Garey - K4OAH
>> >>> > > > Glen Allen, VA
>> >>> > > >
>> >>> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> >>> > > > and TR-4/C Service Supplement CDs
>> >>> > > > <www.k4oah.com>;
>> >>> > > >
>> >>> > > > Michael Engstrom wrote:
>> >>> > > > > Garey -
>> >>> > > > >
>> >>> > > > > Wanted to let you know that the 400 Watts the L4B amplifier
>> puts
>> >>> out
>> >>> > > > warms
>> >>> > > > > up the oil in the Heath Kit Cantenna.
>> >>> > > > >
>> >>> > > > > I get the same results on all bands unless the results are so
>> >>> subtle
>> >>> > > > that I
>> >>> > > > > have not noticed them.
>> >>> > > > >
>> >>> > > > > 1. I get a nice, rather sharp dip in the plate current.
>> >>> > > > >
>> >>> > > > > 2. Load capacitor all the way counter cockwise for maximum RF
>> >>> output.
>> >>> > > > >
>> >>> > > > > 3. Just 300 - 400 watts.
>> >>> > > > >
>> >>> > > > >
>> >>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <
>> k4oah@...>
>> >>> > wrote:
>> >>> > > > >
>> >>> > > > >>
>> >>> > > > >> Michael -
>> >>> > > > >>
>> >>> > > > >> OK. It sure acts like there is no load past the wattmeter,
>> >>> > > > >> except
>> >>> > for
>> >>> > > > the
>> >>> > > > >> minimal reflected power.
>> >>> > > > >>
>> >>> > > > >> I agree that it's unlikely that both caps would fail, and a
>> >>> > > > >> single
>> >>> > cap
>> >>> > > > > would work fine on the

>> >>> > > > >> higher bands, especially.
>> >>> > > > >>
>> >>> > > > >> Does it change on different bands??
>> >>> > > > >>
>> >>> > > > >> 73, Garey - K4OAH
>> >>> > > > >> Glen Allen, VA
>> >>> > > > >>
>> >>> > > > >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> >>> > > > >> and TR-4/C Service Supplement CDs
>> >>> > > > >> <www.k4oah.com>;
>> >>> > > > >>
>> >>> > > > >> Michael Engstrom wrote:
>> >>> > > > >>> Garey-
>> >>> > > > >>>
>> >>> > > > >>> Since there are two doorknob caps in parallel, I pulled one
>> >>> > > > >>> out
>> >>> at
>> >>> > a
>> >>> > > > time
>> >>> > > > >>> leaving the other one in place to check for any change ...
>> the
>> >>> > result:
>> >>> > > > No
>> >>> > > > >>> change. I wouldn't think both would fail at the same time.
>> >>> > > > >>>
>> >>> > > > >>> It seems like I'm missing something obvious.
>> >>> > > > >>>
>> >>> > > > >>> I use the cantenna, connecting cables and an external watt
>> >>> > > > >>> meter
>> >>> > > > >> frequently
>> >>> > > > >>> with various amplifiers, don't suspect anything there.
>> >>> > > > >>> Thank you for your ideas.
>> >>> > > > >>>
>> >>> > > > >>> I'll keep plugging away.
>> >>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<
>> k4oah@...>
>> >>> > wrote:
>> >>> > > > >>>
>> >>> > > > >>>> Michael -
>> >>> > > > >>>>
>> >>> > > > >>>> When you hear hoofbeats, think horses, not zebras!!
>> >>> > > > >>>>
>> >>> > > > >>>> Have you confirmed the cable from the wattmeter to the
>> >>> > > > >>>> dummy
>> >>> > load???
>> >>> > > > > >> Check
>> >>> > > > >>>> at the wattmeter
>> >>> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
>> >>> sounds
>> >>> > like

>> >>> > > > >> no
>> >>> > > > >>>> antenna past the
>> >>> > > > >>>> wattmeter..... You could also connect the cable from
>> >>> > > > >>>> the
>> >>> > > > >>>> amp
>> >>> > to
>> >>> > > > the
>> >>> > > > >>>> wattmeter directly to
>> >>> > > > >>>> the dummy load.
>> >>> > > > >>>>
>> >>> > > > >>>> I've never seen this happen, so not sure how it would
>> >>> > > > >>>> present,
>> >>> > but it
>> >>> > > > >> sure
>> >>> > > > >>>> appears that C43 or
>> >>> > > > >>>> C44 has opened. The doorknob caps are chosen for their
>> >>> > > > >>>> ability
>> >>> to
>> >>> > > > handle
>> >>> > > > >>>> the very high RF
>> >>> > > > >>>> currents at this point as much as their high voltage
>> >>> > capabilities. I
>> >>> > > > >> would
>> >>> > > > >>>> remove those caps
>> >>> > > > >>>> and check them for capacitance.
>> >>> > > > >>>>
>> >>> > > > >>>> 73, Garey - K4OAH
>> >>> > > > >>>> Glen Allen, VA
>> >>> > > > >>>>
>> >>> > > > >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> >>> > > > >>>> and TR-4/C Service Supplement CDs
>> >>> > > > >>>> <www.k4oah.com>;
>> >>> > > > >>>>
>> >>> > > > >>>> Michael Engstrom wrote:
>> >>> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a
>> >>> > > > >>>>> few
>> >>> watts
>> >>> > > > >>>>> reflected. The load capacitor is all tied together and
>> >>> > > > >>>>> there's
>> >>> an
>> >>> > > > extra
>> >>> > > > >>>> cap
>> >>> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
>> >>> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey
>> >>> > > > >>>>> Barrell"<k4oah@...>
>> >>> > > > wrote:
>> >>> > > > >>>>>
>> >>> > > > >>>>> OK. Well the measurements you have are exactly what you
>> >>> > > > >>>>> would
>> >>> > see if

>> >>> > > > >> the
>> >>> > > > >>>>>> LOAD capacitor was
>> >>> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD
>> >>> > > > >>>>>> control
>> >>> > reduces
>> >>> > > > the
>> >>> > > > >>>> Grid
>> >>> > > > >>>>>> current as the PLATE
>> >>> > > > >>>>>> current increases. Is it the same on more than one
>> >>> > > > >>>>>> band??
>> >>> > > > >>>>>> Is
>> >>> the
>> >>> > > > PLATE
>> >>> > > > >>>> dip
>> >>> > > > >>>>>> very sharp??
>> >>> > > > >>>>>>
>> >>> > > > >>>>>> What does the L-4B Wattmeter show, Forward or
>> >>> > > > >>>>>> Reflected??
>> >>> > > > >>>>>> Are
>> >>> > all
>> >>> > > > four
>> >>> > > > >>>>>> stators of the LOAD cap
>> >>> > > > >>>>>> tied together and to the 700 pF 'extra' cap on 80M?
>> >>> > > > >>>>>>
>> >>> > > > >>>>>> I guess an open Plate Blocking cap could present that
>> >>> > > > >>>>>> way,
>> >>> I've
>> >>> > > > never
>> >>> > > > >>>> seen
>> >>> > > > >>>>>> one go. It can't be
>> >>> > > > >>>>>> a component 'shorting' the output as you have plenty of
>> >>> > > > >>>>>> power
>> >>> > to fry
>> >>> > > > >>>>>> anything across the
>> >>> > > > >>>>>> output. Are you using a dummy load? Or a known 'matched'
>> >>> > antenna?
>> >>> > > > >>>>>>
>> >>> > > > >>>>>> Surplus Sales of Nebraska has a nice selection of
>> >>> > > > >>>>>> doorknob
>> >>> caps.
>> >>> > > > Also
>> >>> > > > >>>>>> Max-Gain Systems of
>> >>> > > > >>>>>> Marietta, GA.
>> >>> > > > >>>>>>
>> >>> > > > >>>>>> 73, Garey - K4OAH
>> >>> > > > >>>>>> Glen Allen, VA
>> >>> > > > >>>>>>
>> >>> > > > >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> >>> > > > >>>>>> and TR-4/C Service Supplement CDs
>> >>> > > > >>>>>> <www.k4oah.com>;

>> >>> > > > >>>>>>
>> >>> > > > >>>>>> Michael Engstrom wrote:
>> >>> > > > >>>>>>> Thanks Garey,
>> >>> > > > >>>>>>>
>> >>> > > > >>>>>>> Confirmed. Its clean, smooth turning and free of dust.
>> >>> > > > >>>>>>>
>> >>> > > > >>>>>>> At this point I'm thinking coupling to the tank
>> >>> > > > >>>>>>> circuit.
>> >>> > > > >>>>>>> All
>> >>> > that
>> >>> > > > >>>>>> potential
>> >>> > > > >>>>>>> energy... just can't get there... I'm not sure where to
>> >>> > > > >>>>>>> get
>> >>> > door
>> >>> > > > knob
>> >>> > > > >>>>>> caps.
>> >>> > > > >>>>>>> First I need to dig in some old boxes.
>> >>> > > > >>>>>>>
>> >>> > > > >>>>>>> Mike. AA7WM
>> >>> > > > >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<
>> >>> k4oah@...>
>> >>> > > > >> wrote:
>> >>> > > > >>>>>>>> Michael -
>> >>> > > > >>>>>>>>
>> >>> > > > >>>>>>>> Did you confirm that the LOAD capacitor is turning
>> >>> > > > >>>>>>>> when
>> >>> > > > >>>>>>>> you
>> >>> > turn
>> >>> > > > the
>> >>> > > > >>>>>> knob??
>> >>> > > > >>>>>>>> 73, Garey - K4OAH
>> >>> > > > >>>>>>>> Glen Allen, VA
>> >>> > > > >>>>>>>>
>> >>> > > > >>>>>>>>
>> >>> > > >
>> >>> > > >
>> >>> > > >
>> >>> > > >
>> >>> > > [Non-text portions of this message have been removed]
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>> >>> > [Non-text portions of this message have been removed]
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>> >> [Non-text portions of this message have been removed]
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>> >> ------------------------------------
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>> >> Yahoo Groups Links
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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>
>

20639. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 22:13:52 UTC
From: Steve Wedge
Topic: 20499 Message: 20639

He tried two sets of tubes, though...

I'm still in the camp that thinks power is not getting to the output properly.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Thursday, May 01, 2014 5:49 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

I sure wish one of the amp experts that hang around here would pipe up!!!

I'll tell you what I would do if it was MY amplifier.

I'd connect a short piece of wire from _all four_ Grid pins to the chassis, and then apply drive. Leave all the other stuff on there.

These tubes are known to develop 'open circuits' inside the tube pins, external to the envelope. IF ONE tube had _ONE_ OPEN Grid Pin, and it just happened to be the one that the RFC
to ground is NOT connected to, then that Grid is floating.

Far fetched?? Perhaps, but it COULD happen. Only ONE pin on ONE tube has to be OPEN.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Garey Barrell wrote:
> The explanation for the Grid current is that power is going into the tubes, but not being
> coupled out. For an as yet undetermined reason, you have a couple of very large diode
> rectifiers with an input network that matches them to a 50 ohm input. So the RF is 'detected'
> and passed to ground, displayed as Grid current.
>
> This would normally indicate a mismatch on the output network, and as a result not coupling
> power to the load.
>
> This is normally the result of no Plate voltage, an open DC block/coupling cap between

the
> tube Plates and the Output matching network.
>
> If you had a return loss bridge, you could connect a 2-2.5k resistor from the DC block cap to
> ground, (disconnecting the tube Plate caps or removing the caps,) and then apply RF at 50 ohms
> through a return loss bridge to the OUTPUT antenna connector and see if you could adjust the
> PLATE and LOAD caps for maximum return loss. If you have a big enough resistor, you could
> actually drive RF from your transmitter and adjust for minimum reflected power.
>
> I still think we're missing something obvious, but I'm #&^$^% if "I" can see it from here.! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
>> Thank you Stu. A lot of really good ideas to implement. I need to up my
>> troubleshooting equipment with a capacitor tester.
>>
>> Meantime... I keep thinking:
>>
>> What would cause those tubes to draw so much grid current with only 5 - 10
>> watts of drive?
>>
>> No amplifier I have ever come across would do that unless there was no or
>> low plate voltage. But the arithmetic proves I have plate voltage.
>>
>> If we could answer this question:
>>
>> What would cause those tubes to draw so much grid current with only 5 - 10
>> watts of drive?
>>
>> the problem may be solved...
>> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
>>
>>>
>>> P.S to my previous post:
>>>
>>> Step 2 may require that you use a matching network/transmatch/"tuner"
>>> between your exciter and the connection point I suggested. The impedance
>>> at
>>> that point is likely beyond what your exciter will properly load.
>>>
>>> Stu

>>>
>>> ----- Original Message -----
>>> From: "w7fe" <w7fe@...>
>>> To: <DrakeRadio@...m>
>>> Sent: Thursday, May 01, 2014 12:55 PM
>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>>>
>>>> OK, how about this?
>>>>
>>>> Step 1: First isolate and check the loading capacitor with a capacitance
>>>> meter to verify that each section produces the correct capacitance change
>>>> when rotated. If OK, restore the connections and go to step 2.
>>>>
>>>> Step 2: Lift the connection from the C22-C24 junction to the tube
>>>> filaments.
>>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>>>> capacitor to that point and put a PL-259 at the other end. Connect it to
>>>> the exciter and operate the amplifier, thereby either eliminating or
>>>> exposing the input circuitry as the problem area.
>>>>
>>>> Step 3: Obviously if it works correctly with this setup, the problem
>>> will
>>>> be
>>>> at least isolated to components in the input or ALC circuitry. OTOH, if
>>> it
>>>> continues to produce similar goofy results, there are at least a lot
>>> fewer
>>>> components to suspect. I'd start with checking capacitance of each of the
>>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC 5.
>>>>
>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
>>>> conductor migration in any co-ax interconnections within the amplifier
>>>> which
>>>> are routed around a tight radius (if there are any). While this condition
>>>> may not produce a short to the shield, the impedance hump at that point
>>>> might be enough to cause tuning issues.
>>>>
>>>> 73 de Stu, W7FE
>>>>
>>>>
>

[Non-text portions of this message have been removed]

20640. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 22:18:01 UTC
From: Michael Engstrom
Topic: 20499 Message: 20640

Garey -

I liked your thoughts. Under the scenario you just presented, are you suggesting there may be a parasitic oscillation... and subsequent grid currant unrelated to the driver?
On May 1, 2014 2:49 PM, "Garey Barrell" <k4oah@...> wrote:

>
>
> I sure wish one of the amp experts that hang around here would pipe up!!!
>
> I'll tell you what I would do if it was MY amplifier.
>
> I'd connect a short piece of wire from _all four_ Grid pins to the
> chassis, and then apply
> drive. Leave all the other stuff on there.
>
> These tubes are known to develop 'open circuits' inside the tube pins,
> external to the
> envelope. IF ONE tube had _ONE_ OPEN Grid Pin, and it just happened to be
> the one that the RFC
> to ground is NOT connected to, then that Grid is floating.
>
> Far fetched?? Perhaps, but it COULD happen. Only ONE pin on ONE tube has
> to be OPEN.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Garey Barrell wrote:
> > The explanation for the Grid current is that power is going into the
> tubes, but not being
> > coupled out. For an as yet undetermined reason, you have a couple of
> very large diode
> > rectifiers with an input network that matches them to a 50 ohm input. So
> the RF is 'detected'
> > and passed to ground, displayed as Grid current.
> >
> > This would normally indicate a mismatch on the output network, and as a
> result not coupling
> > power to the load.

> >
> > This is normally the result of no Plate voltage, an open DC
> block/coupling cap between the
> > tube Plates and the Output matching network.
> >
> > If you had a return loss bridge, you could connect a 2-2.5k resistor
> from the DC block cap to
> > ground, (disconnecting the tube Plate caps or removing the caps,) and
> then apply RF at 50 ohms
> > through a return loss bridge to the OUTPUT antenna connector and see if
> you could adjust the
> > PLATE and LOAD caps for maximum return loss. If you have a big enough
> resistor, you could
> > actually drive RF from your transmitter and adjust for minimum reflected
> power.
> >
> > I still think we're missing something obvious, but I'm #&^$^% if "I" can
> see it from here.! :-)
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Michael Engstrom wrote:
> >> Thank you Stu. A lot of really good ideas to implement. I need to up my
> >> troubleshooting equipment with a capacitor tester.
> >>
> >> Meantime... I keep thinking:
> >>
> >> What would cause those tubes to draw so much grid current with only 5 -
> 10
> >> watts of drive?
> >>
> >> No amplifier I have ever come across would do that unless there was no
> or
> >> low plate voltage. But the arithmetic proves I have plate voltage.
> >>
> >> If we could answer this question:
> >>
> >> What would cause those tubes to draw so much grid current with only 5 -
> 10
> >> watts of drive?
> >>
> >> the problem may be solved...
> >> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
> >>
> >>>

> >>> P.S to my previous post:
> >>>
> >>> Step 2 may require that you use a matching network/transmatch/"tuner"
> >>> between your exciter and the connection point I suggested. The
> impedance
> >>> at
> >>> that point is likely beyond what your exciter will properly load.
> >>>
> >>> Stu
> >>>
> >>> ----- Original Message -----
> >>> From: "w7fe" <w7fe@...>
> >>> To: <DrakeRadio@yahoogroups.com>
> >>> Sent: Thursday, May 01, 2014 12:55 PM
> >>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
> >>>
> >>>> OK, how about this?
> >>>>
> >>>> Step 1: First isolate and check the loading capacitor with a
> capacitance
> >>>> meter to verify that each section produces the correct capacitance
> change
> >>>> when rotated. If OK, restore the connections and go to step 2.
> >>>>
> >>>> Step 2: Lift the connection from the C22-C24 junction to the tube
> >>>> filaments.
> >>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
> >>>> capacitor to that point and put a PL-259 at the other end. Connect it
> to
> >>>> the exciter and operate the amplifier, thereby either eliminating or
> >>>> exposing the input circuitry as the problem area.
> >>>>
> >>>> Step 3: Obviously if it works correctly with this setup, the problem
> >>> will
> >>>> be
> >>>> at least isolated to components in the input or ALC circuitry. OTOH,
> if
> >>> it
> >>>> continues to produce similar goofy results, there are at least a lot
> >>> fewer
> >>>> components to suspect. I'd start with checking capacitance of each of
> the
> >>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC
> 5.
> >>>>
> >>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
> >>>> conductor migration in any co-ax interconnections within the amplifier
> >>>> which
> >>>> are routed around a tight radius (if there are any). While this
> condition

> >>>> may not produce a short to the shield, the impedance hump at that
> point
> >>>> might be enough to cause tuning issues.
> >>>>
> >>>> 73 de Stu, W7FE
> >>>>
> >>>>
> >
>
>
>

[Non-text portions of this message have been removed]

20641. RE: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 23:09:13 UTC
From: keith evans
Topic: 20499 Message: 20641

Hi Again Mike,

I am now thinking, as one of the earlier Posts said, You have a faulty relay, or wiring issue around there.

Why you can still get 400W beats me, but it would explain the weird behaviour of the Grid Current.

FWIW

73 Keith G3VKW

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Michael Engstrom
Sent: 01 May 2014 22:54
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Thanks Paul, I need to calibrate the grid current meter so I can check it
off for certain.
On May 1, 2014 2:45 PM, "Paul Dulaff" <pdulaff@...> wrote:

>
>
> Mike
>
> You seem convinced that the grid current metering circuit is reporting
> correctly.
> Did you already check it calibration ?
>
> Paul - WB2NMI
>
> ----- Original Message -----
> From: Michael Engstrom <michael.engstrom.73@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Thu, 01 May 2014 16:50:37 -0400 (EDT)
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> Thank you Stu. A lot of really good ideas to implement. I need to up my
>
> troubleshooting equipment with a capacitor tester.
>
> Meantime... I keep thinking:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
>
> watts of drive?

>
> No amplifier I have ever come across would do that unless there was no or
>
> low plate voltage. But the arithmetic proves I have plate voltage.
>
> If we could answer this question:
>
> What would cause those tubes to draw so much grid current with only 5 - 10
>
> watts of drive?
>
> the problem may be solved...
>
> On May 1, 2014 1:33 PM, "w7fe" <w7fe@cox.net> wrote:
>
> >
>
> >
>
> > P.S to my previous post:
>
> >
>
> > Step 2 may require that you use a matching network/transmatch/"tuner"
>
> > between your exciter and the connection point I suggested. The impedance
>
> > at
>
> > that point is likely beyond what your exciter will properly load.
>
> >
>
> > Stu
>
> >
>
> > ----- Original Message -----
>
> > From: "w7fe" <w7fe@...>
>
> > To: <DrakeRadio@yahoogroups.com>
>
> > Sent: Thursday, May 01, 2014 12:55 PM
>
> > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> >
>
> > > OK, how about this?

>
> > >
>
> > > Step 1: First isolate and check the loading capacitor with a
> capacitance
>
> > > meter to verify that each section produces the correct capacitance
> change
>
> > > when rotated. If OK, restore the connections and go to step 2.
>
> > >
>
> > > Step 2: Lift the connection from the C22-C24 junction to the tube
>
> > > filaments.
>
> > > Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>
> > > capacitor to that point and put a PL-259 at the other end. Connect it
> to
>
> > > the exciter and operate the amplifier, thereby either eliminating or
>
> > > exposing the input circuitry as the problem area.
>
> > >
>
> > > Step 3: Obviously if it works correctly with this setup, the problem
>
> > will
>
> > > be
>
> > > at least isolated to components in the input or ALC circuitry. OTOH, if
>
> > it
>
> > > continues to produce similar goofy results, there are at least a lot
>
> > fewer
>
> > > components to suspect. I'd start with checking capacitance of each of
> the
>
> > > 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and RFC
> 5.
>
> > >
>

> > > Step 4 (grasping at straws): Perhaps there is a possibility of center
>
> > > conductor migration in any co-ax interconnections within the amplifier
>
> > > which
>
> > > are routed around a tight radius (if there are any). While this
> condition
>
> > > may not produce a short to the shield, the impedance hump at that point
>
> > > might be enough to cause tuning issues.
>
> > >
>
> > > 73 de Stu, W7FE
>
> > >
>
> > > ----- Original Message -----
>
> > > From: "Michael Engstrom" <michael.engstrom.73@...>
>
> > > To: <DrakeRadio@yahoogroups.com>
>
> > > Sent: Wednesday, April 30, 2014 3:58 PM
>
> > > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> > >
>
> > >
>
> > >> Copy that. Yes filaments.
>
> > >>
>
> > >> Thank you for your thoughts.
>
> > >> On Apr 30, 2014 3:54 PM, "Evan Rolek" <k9sqg@...> wrote:
>
> > >>
>
> > >>>
>
> > >>> I believe "cathodes" in this instance means filament. The 3-500
> series
>

> > >>> is
>
> > >>> not indirectly heated and thus has no cathode per se.
>
> > >>>
>
> > >>> -----Original Message-----
>
> > >>> From: Michael Engstrom <michael.engstrom.73@...>
>
> > >>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>
> > >>> Sent: Wed, Apr 30, 2014 3:27 pm
>
> > >>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> > >>>
>
> > >>> Chris -
>
> > >>>
>
> > >>> Thank you for your input Chris.
>
> > >>> The only modifications this amplifier has is the surge protector and
>
> > >>> soft
>
> > >>> key mods from Harbach electronics. Removing the surge protector
>
> > produced
>
> > >>> no
>
> > >>> change in performance.
>
> > >>> I don't have a schematic in front of me so I'm going from memory at
>
> > this
>
> > >>> point:
>
> > >>>
>
> > >>> When the amplifier is keyed, the cathodes become common to the
> grounded
>
> > >>> grids through the T/R relay and a 1 ohm 10 watt resistor, and the
> grids
>

> > >>> are
>
> > >>> allowed to conduct with adequate drive. When not keyed the cathodes
>
> > >>> receive
>
> > >>> +120 volts from the T/R relay and power supply effectively cutting
> off
>
> > >>> all
>
> > >>> plate and grid current .
>
> > >>> On Apr 30, 2014 12:07 PM, <vacuuminded2@...> wrote:
>
> > >>>
>
> > >>> >
>
> > >>> >
>
> > >>> > Are you sure someone didn't attempt to modify that amp for class B
> or
>
> > >>> > C?
>
> > >>> > If successful one would expect more power out, but this might
> explain
>
> > >>> > the
>
> > >>> > low drive required (20w you said?) to obtain the specified grid
>
> > >>> > current.
>
> > >>> >
>
> > >>> > Just a thought
>
> > >>> >
>
> > >>> > Chris
>
> > >>> >
>
> > >>> > Sent from my outdated iPhone wireless thingy
>
> > >>> >
>
> > >>> > On Apr 30, 2014, at 1:45 PM, Michael Engstrom <

>
> > >>> > michael.engstrom.73@...> wrote:
>
> > >>> >
>
> > >>> > > Yes, except the grid current is way too high for such a low
> output.
>
> > >>> > >
>
> > >>> > > 230 ma grid current.
>
> > >>> > > 250 ma plate current
>
> > >>> > > 2500 plate voltage
>
> > >>> > > 625 watt input
>
> > >>> > > About 350 watts output
>
> > >>> > > 56% efficiency
>
> > >>> > >
>
> > >>> > > The answer must be resting somewhere within the excessive grid
>
> > >>> > > current
>
> > >>> > > reading.
>
> > >>> > > On Apr 30, 2014 11:30 AM, "Garey Barrell" <k4oah@...>
>
> > >>> wrote:
>
> > >>> > >
>
> > >>> > > >
>
> > >>> > > > Really strange behavior... Sounds exactly like what happens if
>
> > the
>
> > >>> LOAD
>
> > >>> > > > control is fully CCW,
>
> > >>> > > > and reducing the LOAD capacitance should cause the PLATE
> current

>
> > >>> > > > to
>
> > >>> > > > increase. Just what I would
>
> > >>> > > > expect if the LOAD variable was NOT turning.
>
> > >>> > > >
>
> > >>> > > > I'm assuming the PLATE current you are seeing is consistent
> with
>
> > >>> > > > the
>
> > >>> > > > amount of output power you
>
> > >>> > > > are seeing.?? About 400 mA in CW??
>
> > >>> > > >
>
> > >>> > > > 73, Garey - K4OAH
>
> > >>> > > > Glen Allen, VA
>
> > >>> > > >
>
> > >>> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > and TR-4/C Service Supplement CDs
>
> > >>> > > > <www.k4oah.com>;
>
> > >>> > > >
>
> > >>> > > > Michael Engstrom wrote:
>
> > >>> > > > > Garey -
>
> > >>> > > > >
>
> > >>> > > > > Wanted to let you know that the 400 Watts the L4B amplifier
>
> > puts
>
> > >>> out
>
> > >>> > > > warms
>
> > >>> > > > > up the oil in the Heath Kit Cantenna.
>

> > >>> > > > >
>
> > >>> > > > > I get the same results on all bands unless the results are so
>
> > >>> subtle
>
> > >>> > > > that I
>
> > >>> > > > > have not noticed them.
>
> > >>> > > > >
>
> > >>> > > > > 1. I get a nice, rather sharp dip in the plate current.
>
> > >>> > > > >
>
> > >>> > > > > 2. Load capacitor all the way counter cockwise for maximum RF
>
> > >>> output.
>
> > >>> > > > >
>
> > >>> > > > > 3. Just 300 - 400 watts.
>
> > >>> > > > >
>
> > >>> > > > >
>
> > >>> > > > > On Apr 30, 2014 11:02 AM, "Garey Barrell" <
>
> > k4oah@...>
>
> > >>> > wrote:
>
> > >>> > > > >
>
> > >>> > > > >>
>
> > >>> > > > >> Michael -
>
> > >>> > > > >>
>
> > >>> > > > >> OK. It sure acts like there is no load past the wattmeter,
>
> > >>> > > > >> except
>
> > >>> > for
>
> > >>> > > > the
>

> > >>> > > > >> minimal reflected power.
>
> > >>> > > > >>
>
> > >>> > > > >> I agree that it's unlikely that both caps would fail, and a
>
> > >>> > > > >> single
>
> > >>> > cap
>
> > >>> > > > >> would work fine on the
>
> > >>> > > > >> higher bands, especially.
>
> > >>> > > > >>
>
> > >>> > > > >> Does it change on different bands??
>
> > >>> > > > >>
>
> > >>> > > > >> 73, Garey - K4OAH
>
> > >>> > > > >> Glen Allen, VA
>
> > >>> > > > >>
>
> > >>> > > > >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > >> and TR-4/C Service Supplement CDs
>
> > >>> > > > >> <www.k4oah.com>;
>
> > >>> > > > >>
>
> > >>> > > > >> Michael Engstrom wrote:
>
> > >>> > > > >>> Garey-
>
> > >>> > > > >>>
>
> > >>> > > > >>> Since there are two doorknob caps in parallel, I pulled one
>
> > >>> > > > >>> out
>
> > >>> at
>
> > >>> > a
>
> > >>> > > > time
>

> > >>> > > > >>> leaving the other one in place to check for any change ...
>
> > the
>
> > >>> > result:
>
> > >>> > > > No
>
> > >>> > > > >>> change. I wouldn't think both would fail at the same time.
>
> > >>> > > > >>>
>
> > >>> > > > >>> It seems like I'm missing something obvious.
>
> > >>> > > > >>>
>
> > >>> > > > >>> I use the cantenna, connecting cables and an external watt
>
> > >>> > > > >>> meter
>
> > >>> > > > >> frequently
>
> > >>> > > > >>> with various amplifiers, don't suspect anything there.
>
> > >>> > > > >>> Thank you for your ideas.
>
> > >>> > > > >>>
>
> > >>> > > > >>> I'll keep plugging away.
>
> > >>> > > > >>> On Apr 30, 2014 8:19 AM, "Garey Barrell"<
>
> > k4oah@...>
>
> > >>> > wrote:
>
> > >>> > > > >>>
>
> > >>> > > > >>> Michael -
>
> > >>> > > > >>>
>
> > >>> > > > >>> When you hear hoofbeats, think horses, not zebras!!
>
> > >>> > > > >>>
>
> > >>> > > > >>> Have you confirmed the cable from the wattmeter to the
> dummy
>
> > >>> > load???

>
> > >>> > > > >> Check
>
> > >>> > > > >>>> at the wattmeter
>
> > >>> > > > >>>> end of that cable to see if you measure 50 ohms. This sure
>
> > >>> sounds
>
> > >>> > like
>
> > >>> > > > >> no
>
> > >>> > > > >>>> antenna past the
>
> > >>> > > > >>>> wattmeter..... You could also connect the cable from
> the
>
> > >>> > > > >>>> amp
>
> > >>> > to
>
> > >>> > > > the
>
> > >>> > > > >>>> wattmeter directly to
>
> > >>> > > > >>>> the dummy load.
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> I've never seen this happen, so not sure how it would
>
> > >>> > > > >>>> present,
>
> > >>> > but it
>
> > >>> > > > >> sure
>
> > >>> > > > >>>> appears that C43 or
>
> > >>> > > > >>>> C44 has opened. The doorknob caps are chosen for their
>
> > >>> > > > >>>> ability
>
> > >>> to
>
> > >>> > > > handle
>
> > >>> > > > >>>> the very high RF
>

> > >>> > > > >>>> currents at this point as much as their high voltage
>
> > >>> > capabilities. I
>
> > >>> > > > >> would
>
> > >>> > > > >>>> remove those caps
>
> > >>> > > > >>>> and check them for capacitance.
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> 73, Garey - K4OAH
>
> > >>> > > > >>>> Glen Allen, VA
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>
> > >>> > > > >>>> and TR-4/C Service Supplement CDs
>
> > >>> > > > >>>> <www.k4oah.com>;
>
> > >>> > > > >>>>
>
> > >>> > > > >>>> Michael Engstrom wrote:
>
> > >>> > > > >>>>> L4B watt meter shows about 400 Watts forward and just a
> few
>
> > >>> watts
>
> > >>> > > > >>>>> reflected. The load capacitor is all tied together and
>
> > >>> > > > >>>>> there's
>
> > >>> an
>
> > >>> > > > extra
>
> > >>> > > > >>>> cap
>
> > >>> > > > >>>>> in there for 80 meters. Its functions fine mechanically.
>
> > >>> > > > >>>>> On Apr 29, 2014 8:52 PM, "Garey
>
> > >>> > > > >>>>> Barrell"<k4oah@...>
>
> > >>> > > > wrote:

>
> > >>> > > > >>>>>
>
> > >>> > > > >>>>>> OK. Well the measurements you have are exactly what you
>
> > >>> > > > >>>>>> would
>
> > >>> > see if
>
> > >>> > > > >> the
>
> > >>> > > > >>>>>> LOAD capacitor was
>
> > >>> > > > >>>>>> stuck at maximum capacitance. Increasing the LOAD
> control
>
> > >>> > reduces
>
> > >>> > > > the
>
> > >>> > > > >>>> Grid
>
> > >>> > > > >>>>>> current as the PLATE
>
> > >>> > > > >>>>>> current increases. Is it the same on more than one
> band??
>
> > >>> > > > >>>>>> Is
>
> > >>> the
>
> > >>> > > > PLATE
>
> > >>> > > > >>>> dip
>
> > >>> > > > >>>>>> very sharp??
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> What does the L-4B Wattmeter show, Forward or
> Reflected??
>
> > >>> > > > >>>>>> Are
>
> > >>> > all
>
> > >>> > > > four
>
> > >>> > > > >>>>>> stators of the LOAD cap
>

> > >>> > > > >>>>>> tied together and to the 700 pF 'extra' cap on 80M?
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> I guess an open Plate Blocking cap could present that
> way,
>
> > >>> I've
>
> > >>> > > > never
>
> > >>> > > > >>>> seen
>
> > >>> > > > >>>>>> one go. It can't be
>
> > >>> > > > >>>>>> a component 'shorting' the output as you have plenty of
>
> > >>> > > > >>>>>> power
>
> > >>> > to fry
>
> > >>> > > > >>>>>> anything across the
>
> > >>> > > > >>>>>> output. Are you using a dummy load? Or a known 'matched'
>
> > >>> > antenna?
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Surplus Sales of Nebraska has a nice selection of
> doorknob
>
> > >>> caps.
>
> > >>> > > > Also
>
> > >>> > > > >>>>>> Max-Gain Systems of
>
> > >>> > > > >>>>>> Marietta, GA.
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> 73, Garey - K4OAH
>
> > >>> > > > >>>>>> Glen Allen, VA
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>

> > >>> > > > >>>>>> and TR-4/C Service Supplement CDs
>
> > >>> > > > >>>>>> <www.k4oah.com>;
>
> > >>> > > > >>>>>>
>
> > >>> > > > >>>>>> Michael Engstrom wrote:
>
> > >>> > > > >>>>>>> Thanks Garey,
>
> > >>> > > > >>>>>>>
>
> > >>> > > > >>>>>>> Confirmed. Its clean, smooth turning and free of dust.
>
> > >>> > > > >>>>>>>
>
> > >>> > > > >>>>>>> At this point I'm thinking coupling to the tank
> circuit.
>
> > >>> > > > >>>>>>> All
>
> > >>> > that
>
> > >>> > > > >>>>>> potential
>
> > >>> > > > >>>>>>> energy... just can't get there... I'm not sure where to
>
> > >>> > > > >>>>>>> get
>
> > >>> > door
>
> > >>> > > > > knob
>
> > >>> > > > >>>>>> caps.
>
> > >>> > > > >>>>>>> First I need to dig in some old boxes.
>
> > >>> > > > >>>>>>>
>
> > >>> > > > >>>>>>> Mike. AA7WM
>
> > >>> > > > >>>>>>> On Apr 29, 2014 6:43 PM, "Garey Barrell"<
>
> > >>> k4oah@...>
>
> > >>> > > > >> wrote:
>
> > >>> > > > >>>>>>>> Michael -
>
> > >>> > > > >>>>>>>>

>
> > >>> > > > >>>>>>>> Did you confirm that the LOAD capacitor is turning
> when
>
> > >>> > > > >>>>>>>> you
>
> > >>> > turn
>
> > >>> > > > the
>
> > >>> > > > >>>>>> knob??
>
> > >>> > > > >>>>>>>> 73, Garey - K4OAH
>
> > >>> > > > >>>>>>>> Glen Allen, VA
>
> > >>> > > > >>>>>>>>
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> > >>> > > > >>>>>>>>
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20642. Re: [DrakeRadio] 2-B passband tuning width lever removal

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-01 23:14:37 UTC
From: Ethan Blanton
Topic: 20373 Message: 20642

Ethan Blanton spake unto us the following wisdom:
> > The PC board IS rather fragile. I grasp the shaft on either side of
> > the coupling, then press my thumbs together to exert pressure. Much
> > safer than yanking on it! Another method is to use a screwdriver to
> > pry against the switch frame. All you have to do is get it started.
> > It's been in that position for 50 years, so it's a little cranky to
> > start.
>
> I don't see any way to grip the shaft on either side of the tubing, it
> covers the entire length from the switch. I can get a screwdriver in
> there to pry between the switch and the tubing, though -- there's even
> a break in some sort of collar on the shaft underneath where I can
> slip the blade in, I think.

Just to bring this full circle ... I was able to pry the brass coupler forward about 3/16" or so, at which point it bumped against the hole through the front of the chassis. (It doesn't fit through.) I didn't have a lot of luck prying it backward without bringing the switch lever with it. I ultimately decided that I was far more likely to either break something or damage the face of the radio than I was really comfortable with.

So, I carefully worked everything back into place, and moved on to plan B. The whole reason I wanted to get the face plate off was to clean the BFO switch, so since I couldn't get the face off I disassembled the switch carefully from behind using a pair of bent needle nose pliers to open the tabs, then cleaned and reassembled it. The BFO now switches off cleanly -- previously it would stick on, and it required a thorough working of the switch to get it off, which it would only achieve at the very limit of downward travel.

Until I have a more pressing need to get that face plate off, I guess I'm good to go.

Ethan

20643. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 00:08:59 UTC
From: Whitebear1122
Topic: 206 Message: 20643

Hey Garey, Ohhhh so that's why the FS-4 can still load down the circuit when the aux crystals are not switched in. Thanks for the info! The FS-4 came with a manual but I haven't been able to find it yet as I've had the FS-4 on the shelf for maybe 2 years. Yeah i was initially planning on just using a crystal plug so thanks for heading that problem off at the pass. Listening to 20m SSB with the R-4C as we speak. I've been enjoying using the T-4XC and R-4C on SSB. Haven't gotten her down to cw yet but I will. 73, Scott WA9WFA

On Apr 30, 2014, at 10:33 AM, Garey Barrell <k4oah@mindspring.com> wrote:

> Scott -
>
> The correct installation for the FS-4 is to connect the HOT lead to the 'common' wire that runs
> to ALL the crystal sockets, and the shield connected to a ground lug nearby. See the manual,
> Section 3.2.
>
> Some have mistakenly connected it to a crystal plug and just plugged it in to any socket. This
> will 'sorta' work, but the levels are reduced and spurious outputs can appear.
>
> Sherwood used to make a relay box to disconnect the FS-4 when it was turned off, but it's no
> longer available.

20644. Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 00:14:38 UTC
From: <rochep@...>
Topic: 20484 Message: 20644

Hmmm, something is up with the finals that came with my T4XC!!!

I put the T4XB finals in my T4XC, everything seemed pretty fine. In TUNE on 80 meters I got 90 watts out with .28A plate current by dipping plate, increasing LOAD till no more output, and then re-dip plate (no extra LOAD adjustment). The LOAD setting was 3 here. 49%, that is fine.

I replaced these finals with my ORIGINAL T4XC (Sylvania) finals. In TUNE on 80 meters with LOAD at ZERO I can dip plate, but then I increase LOAD and plate current and output power go up and up and up until LOAD is at max scale. In fact I have to decrease the GAIN, the plate current is going off scale!!!!

Tubes seem neutralized. Something clearly seems wrong with my ORIGINAL T4XC finals. (When I put them in my T4XB now my T4XB acts crazy and the plate current NEVER stops going up by increasing the LOAD.

So what is going on (besides me ordering a new set of finals?)

paul

[Non-text portions of this message have been removed]

20645. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 00:29:54 UTC
From: Jim Wiley
Topic: 20499 Message: 20645

Maybe the plate RF choke is open. Just because you have b+ where the meter reads, it doesn't meant it is actually getting to the plates. Unplug the amp, wait at least 5 minutes for capacitors to discharge, disconnect the high voltage cable from the Millen connector on the back of the amp, and measure with an ohmmeter from the center pin of the HV jack to each plate, individually. Should be only a few ohms, might be close to zero ohms. Anything more than a few ohms indicates a problem.

An open plat4e choke would still allow grid current to be drawn when the amp is driven, but no power would be produced. The small amount of power you are seeing might be attributable to feed through power.

- Jim, KL7CC

On 5/1/2014 1:39 PM, Garey Barrell wrote:
>
> The explanation for the Grid current is that power is going into the
> tubes, but not being
> coupled out. For an as yet undetermined reason, you have a couple of
> very large diode
> rectifiers with an input network that matches them to a 50 ohm input.
> So the RF is 'detected'
> and passed to ground, displayed as Grid current.
>
> This would normally indicate a mismatch on the output network, and as
> a result not coupling
> power to the load.
>
> This is normally the result of no Plate voltage, an open DC
> block/coupling cap between the tube
> Plates and the Output matching network.
>
> If you had a return loss bridge, you could connect a 2-2.5k resistor
> from the DC block cap to
> ground, (disconnecting the tube Plate caps or removing the caps,) and
> then apply RF at 50 ohms
> through a return loss bridge to the OUTPUT antenna connector and see
> if you could adjust the
> PLATE and LOAD caps for maximum return loss. If you have a big enough
> resistor, you could
> actually drive RF from your transmitter and adjust for minimum
> reflected power.
>
> I still think we're missing something obvious, but I'm #&^$^% if "I"
> can see it from here.! :-)
>

> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
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>
> Michael Engstrom wrote:
> > Thank you Stu. A lot of really good ideas to implement. I need to up my
> > troubleshooting equipment with a capacitor tester.
> >
> > Meantime... I keep thinking:
> >
> > What would cause those tubes to draw so much grid current with only
> 5 - 10
> > watts of drive?
> >
> > No amplifier I have ever come across would do that unless there was
> no or
> > low plate voltage. But the arithmetic proves I have plate voltage.
> >
> > If we could answer this question:
> >
> > What would cause those tubes to draw so much grid current with only
> 5 - 10
> > watts of drive?
> >
> > the problem may be solved...
> > On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
> >
> >>
> >> P.S to my previous post:
> >>
> >> Step 2 may require that you use a matching network/transmatch/"tuner"
> >> between your exciter and the connection point I suggested. The
> impedance
> >> at
> >> that point is likely beyond what your exciter will properly load.
> >>
> >> Stu
> >>
> >> ----- Original Message -----
> >> From: "w7fe" <w7fe@...>
> >> To: <DrakeRadio@yahoogroups.com>
> >> Sent: Thursday, May 01, 2014 12:55 PM
> >> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
> >>
> >>> OK, how about this?
> >>>
> >>> Step 1: First isolate and check the loading capacitor with a

> capacitance
> >>> meter to verify that each section produces the correct capacitance
> change
> >>> when rotated. If OK, restore the connections and go to step 2.
> >>>
> >>> Step 2: Lift the connection from the C22-C24 junction to the tube
> >>> filaments.
> >>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
> >>> capacitor to that point and put a PL-259 at the other end. Connect
> it to
> >>> the exciter and operate the amplifier, thereby either eliminating or
> >>> exposing the input circuitry as the problem area.
> >>>
> >>> Step 3: Obviously if it works correctly with this setup, the problem
> >> will
> >>> be
> >>> at least isolated to components in the input or ALC circuitry.
> OTOH, if
> >> it
> >>> continues to produce similar goofy results, there are at least a lot
> >> fewer
> >>> components to suspect. I'd start with checking capacitance of each
> of the
> >>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and
> RFC 5.
> >>>
> >>> Step 4 (grasping at straws): Perhaps there is a possibility of center
> >>> conductor migration in any co-ax interconnections within the amplifier
> >>> which
> >>> are routed around a tight radius (if there are any). While this
> condition
> >>> may not produce a short to the shield, the impedance hump at that
> point
> >>> might be enough to cause tuning issues.
> >>>
> >>> 73 de Stu, W7FE
> >>>
> >>>
>
>

[Non-text portions of this message have been removed]

20646. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 00:52:36 UTC
From: James Scribner
Topic: 20499 Message: 20646

Not unlikely for pins on 3-500Z to come soldered from the filament heat either. Just a thought as have seen many!
73 Jim
W5SWM

[Non-text portions of this message have been removed]

20647. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 01:42:06 UTC
From: Garey Barrell
Topic: 206 Message: 20647

Scott -

The FS-4 Manual is on the CD. Cleverly hidden in the 'Manuals' sub-directory along with several
others! :-)

Glad you're enjoying it. It IS a nice station....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 wrote:
> Hey Garey, Ohhhh so that's why the FS-4 can still load down the circuit when the aux crystals are not switched in. Thanks for the info! The FS-4 came with a manual but I haven't been able to find it yet as I've had the FS-4 on the shelf for maybe 2 years. Yeah i was initially planning on just using a crystal plug so thanks for heading that problem off at the pass. Listening to 20m SSB with the R-4C as we speak. I've been enjoying using the T-4XC and R-4C on SSB. Haven't gotten her down to cw yet but I will. 73, Scott WA9WFA
>
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> On Apr 30, 2014, at 10:33 AM, Garey Barrell <k4oah@...> wrote:
>
>> Scott -
>>
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>> to ALL the crystal sockets, and the shield connected to a ground lug nearby. See the manual,
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>> Some have mistakenly connected it to a crystal plug and just plugged it in to any socket. This
>> will 'sorta' work, but the levels are reduced and spurious outputs can appear.
>>
>> Sherwood used to make a relay box to disconnect the FS-4 when it was turned off, but it's no
>>

20648. Re: [DrakeRadio] Re: T4XC plate current too high?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 01:45:29 UTC
From: Garey Barrell
Topic: 20484 Message: 20648

Paul -

They're oscillating. Usually a result of improper neutralization, but a bad bypass cap or connection 'can' cause it.

If the other PA tubes work fine in both radios, you have your answer!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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rochep@... wrote:
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> I replaced these finals with my ORIGINAL T4XC (Sylvania) finals. In TUNE on 80 meters with LOAD at ZERO I can dip plate, but then I increase LOAD and plate current and output power go up and up and up until LOAD is at max scale. In fact I have to decrease the GAIN, the plate current is going off scale!!!!
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> Tubes seem neutralized. Something clearly seems wrong with my ORIGINAL T4XC finals. (When I put them in my T4XB now my T4XB acts crazy and the plate current NEVER stops going up by increasing the LOAD.
>
> So what is going on (besides me ordering a new set of finals?)
>
> paul
>
>

20649. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 01:47:43 UTC
From: Jim Wiley
Topic: 20499 Message: 20649

More on my last suggestion: Since you will have the covers off for the plate choke resistance test, be sure to hold down the interlock shorting switch (normally pressed down by the cabinet cover), or else ohmmeter readings could be meaningless. If the interlock is released, it will short the B+ line to ground. The test needs to be made with the interlock depressed (contact points open) .

Forgot to mention that the first time around.

- Jim, KL7CC

20650. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 01:47:58 UTC
From: Garey Barrell
Topic: 20499 Message: 20650

Jim -

Good idea.... I 'think' we checked for HV at the plate caps early on, but I've got about five
different 'projects' going at the moment and they're starting to run together.... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> ground, (disconnecting the tube Plate caps or removing the caps,) and
>> then apply RF at 50 ohms
>> through a return loss bridge to the OUTPUT antenna connector and see
>> if you could adjust the
>> PLATE and LOAD caps for maximum return loss. If you have a big enough
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>>>> at
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>>>>
>>>> ----- Original Message -----
>>>> From: "w7fe" <w7fe@...>
>>>> To: <DrakeRadio@yahoogroups.com>
>>>> Sent: Thursday, May 01, 2014 12:55 PM
>>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>>>>
>>>>> OK, how about this?
>>>>>
>>>>> Step 1: First isolate and check the loading capacitor with a
>> capacitance
>>>>> meter to verify that each section produces the correct capacitance
>> change
>>>>> when rotated. If OK, restore the connections and go to step 2.
>>>>>
>>>>> Step 2: Lift the connection from the C22-C24 junction to the tube
>>>>> filaments.
>>>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
>>>>> capacitor to that point and put a PL-259 at the other end. Connect
>> it to
>>>>> the exciter and operate the amplifier, thereby either eliminating or
>>>>> exposing the input circuitry as the problem area.
>>>>>
>>>>> Step 3: Obviously if it works correctly with this setup, the problem
>>>> will
>>>>> be
>>>>> at least isolated to components in the input or ALC circuitry.
>> OTOH, if
>>>> it
>>>>> continues to produce similar goofy results, there are at least a lot
>>>> fewer
>>>>> components to suspect. I'd start with checking capacitance of each
>> of the
>>>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and
>> RFC 5.
>>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
>>>>> conductor migration in any co-ax interconnections within the amplifier
>>>>> which
>>>>> are routed around a tight radius (if there are any). While this
>> condition
>>>>> may not produce a short to the shield, the impedance hump at that
>> point
>>>>> might be enough to cause tuning issues.
>>>>>
>>>>> 73 de Stu, W7FE
>>>>>
>>>>>
>>

20651. TR-4C RIT Modification

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 01:55:50 UTC
From: Steve VK2SJA
Topic: 20594 Message: 20651

Hi All,

Playing around with ideas for adding RIT functionality to my TR-4C.

Any solution is going to need an additional automatic switch that toggles on/off between RX and TX. For the moment I'm thinking small +12vdc relay.

So my question is how to best to go about providing this switching signal/voltage.

I note relay K1 has a switched pair going to pins 5 & 8 of J3. So I could use this. But what functionality/accessory is this used for normally?

I can see that all XMIT K pins are grounded on TX. But I think from memory I measured something like 100+ volts floating on it when in RX. Can you, is it safe to, place a relay coil between +12v and XMIT K with a diode between relay and XMIT K to stop the 100+ volts from energizing the relay in RX? Or is this a dangerous and dumb idea?

A better/best solution would be?

Oh, and before anyone asks. The idea is to replace the non-functional NB On/Off switch with a RIT pot. *WITHOUT* marking or defacing the front panel in any way!! So the control will be labelled incorrectly. Don't care. My radio and I'll know what it does. Most importantly the mod can be reversed back to original at any time.

73, Steve.

20652. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 02:09:46 UTC
From: Jim Wiley
Topic: 20499 Message: 20652

One final check -

When the amplifier is "buttoned up", it should draw between 200 and 250 milliamperes PLATE current when turned on and keyed (when the connector marked "vox relay" hot lead is shorted to ground). Make this test with NO RF driving power applied. If it does not do this, there is definitely something amiss in the b+ circuitry

Another thought - it is possible that there is a wire (on the RF choke?) that is partially burned through, making enouigh connection for the b+ meter to read, but failing open when you try to draw some real current.

- Jim, KL7CC

20653. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 02:12:55 UTC
From: Paul Dulaff
Topic: 20499 Message: 20653

Mike

If the RF plate choke were open, then you would be drawing zero plate current under all conditions. I recall you had plate current so I would anticipate the plate choke has continuity.

Paul - WB2NMI

----- Original Message -----
From: Garey Barrell <k4oah@...>
To: DrakeRadio@yahoogroups.com
Sent: Thu, 01 May 2014 21:47:58 -0400 (EDT)
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Jim -

Good idea.... I 'think' we checked for HV at the plate caps early on, but I've got about five

different 'projects' going at the moment and they're starting to run together.... :-)

73, Garey - K4OAH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs

<www.k4oah.com>

Jim Wiley wrote:

> Maybe the plate RF choke is open. Just because you have b+ where the

> meter reads, it doesn't meant it is actually getting to the plates.

> Unplug the amp, wait at least 5 minutes for capacitors to discharge,

> disconnect the high voltage cable from the Millen connector on the back

> of the amp, and measure with an ohmmeter from the center pin of the HV

> jack to each plate, individually. Should be only a few ohms, might be

> close to zero ohms. Anything more than a few ohms indicates a problem.

>

> An open plat4e choke would still allow grid current to be drawn when

> the amp is driven, but no power would be produced. The small amount of

> power you are seeing might be attributable to feed through power.

>

> - Jim, KL7CC

>

> On 5/1/2014 1:39 PM, Garey Barrell wrote:

>> The explanation for the Grid current is that power is going into the

>> tubes, but not being

>> coupled out. For an as yet undetermined reason, you have a couple of

>> very large diode

>> rectifiers with an input network that matches them to a 50 ohm input.

>> So the RF is 'detected'

>> and passed to ground, displayed as Grid current.

>>

>> This would normally indicate a mismatch on the output network, and as

>> a result not coupling

>> power to the load.

>>

>> This is normally the result of no Plate voltage, an open DC

>> block/coupling cap between the tube

>> Plates and the Output matching network.

>>

>> If you had a return loss bridge, you could connect a 2-2.5k resistor

>> from the DC block cap to

>> ground, (disconnecting the tube Plate caps or removing the caps,) and

>> then apply RF at 50 ohms

>> through a return loss bridge to the OUTPUT antenna connector and see

>> if you could adjust the

>> PLATE and LOAD caps for maximum return loss. If you have a big enough

>> resistor, you could

>> actually drive RF from your transmitter and adjust for minimum

>> reflected power.

>>

>> I still think we're missing something obvious, but I'm #&^$^% if "I"

>> can see it from here.! :-)

>>

>> 73, Garey - K4OAH

>> Glen Allen, VA

>>

>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

>> and TR-4/C Service Supplement CDs

>> <www.k4oah.com>

>>

>> Michael Engstrom wrote:

>>> Thank you Stu. A lot of really good ideas to implement. I need to up my

>>> troubleshooting equipment with a capacitor tester.

>>>

>>> Meantime... I keep thinking:

>>>

>>> What would cause those tubes to draw so much grid current with only

>> 5 - 10

>>> watts of drive?

>>>

>>> No amplifier I have ever come across would do that unless there was

>> no or

>>> low plate voltage. But the arithmetic proves I have plate voltage.

>>>

>>> If we could answer this question:

>>>

>>> What would cause those tubes to draw so much grid current with only

>> 5 - 10

>>> watts of drive?

>>>

>>> the problem may be solved...

>>> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:

>>>

>>>> P.S to my previous post:

>>>>

>>>> Step 2 may require that you use a matching network/transmatch/"tuner"

>>>> between your exciter and the connection point I suggested. The

>> impedance

>>>> at

>>>> that point is likely beyond what your exciter will properly load.

>>>>

>>>> Stu

>>>>

>>>> ----- Original Message -----

>>>> From: "w7fe" <w7fe@...>

>>>> To: <DrakeRadio@yahoogroups.com>

>>>> Sent: Thursday, May 01, 2014 12:55 PM

>>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.

>>>>

>>>>> OK, how about this?

>>>>>

>>>>> Step 1: First isolate and check the loading capacitor with a

>> capacitance

>>>>> meter to verify that each section produces the correct capacitance

>> change

>>>>> when rotated. If OK, restore the connections and go to step 2.

>>>>>

>>>>> Step 2: Lift the connection from the C22-C24 junction to the tube

>>>>> filaments.

>>>>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF

>>>>> capacitor to that point and put a PL-259 at the other end. Connect

>> it to

>>>>> the exciter and operate the amplifier, thereby either eliminating or

>>>>> exposing the input circuitry as the problem area.

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>>>>> Step 3: Obviously if it works correctly with this setup, the problem

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>>>>> be

>>>>> at least isolated to components in the input or ALC circuitry.

>> OTOH, if

>>>> it

>>>>> continues to produce similar goofy results, there are at least a lot

>>>> fewer

>>>>> components to suspect. I'd start with checking capacitance of each

>> of the

>>>>> 200 pf grid bypass capacitors individually, then RFC1, RFC 3, and

>> RFC 5.

>>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center

>>>>> conductor migration in any co-ax interconnections within the amplifier

>>>>> which

>>>>> are routed around a tight radius (if there are any). While this

>> condition

>>>>> may not produce a short to the shield, the impedance hump at that

>> point

>>>>> might be enough to cause tuning issues.

>>>>>

>>>>> 73 de Stu, W7FE

>>>>>

>>>>>

>>

[Non-text portions of this message have been removed]

20654. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 04:03:55 UTC
From: Jim Shorney
Topic: 206 Message: 20654

Manuals are available online. Google is your friend. The first hit looks like a good quality scan:

http://www.k7jrl.com/pub/manuals/drake/fs4/Drake%20FS-4%20Manual.PDF

73

-Jim
NU0C

On Thu, 1 May 2014 19:08:59 -0500, Whitebear1122 wrote:

>Hey Garey, Ohhhh so that's why the FS-4 can still load down the circuit when the aux crystals are not switched in. Thanks for the info! The FS-4 came with a manual but I haven't been able to find it yet as I've had the FS-4 on the shelf for maybe 2 years. Yeah i was initially planning on just using a crystal plug so thanks for heading that problem off at the pass. Listening to 20m SSB with the R-4C as we speak. I've been enjoying using the T-4XC and R-4C on SSB. Haven't gotten her down to cw yet but I will. 73, Scott WA9WFA

>On Apr 30, 2014, at 10:33 AM, Garey Barrell <k4oah@...> wrote:

>> Scott -
>>
>> The correct installation for the FS-4 is to connect the HOT lead to the 'common' wire that runs
>> to ALL the crystal sockets, and the shield connected to a ground lug nearby. See the manual,
>> Section 3.2.
>>
>> Some have mistakenly connected it to a crystal plug and just plugged it in to any socket. This
>> will 'sorta' work, but the levels are reduced and spurious outputs can appear.
>>
>> Sherwood used to make a relay box to disconnect the FS-4 when it was turned off, but it's no
>> longer available.

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20655. Re: [DrakeRadio] Re: TR7: replacing 2nd IF/Audio Board - I did it !

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 04:18:55 UTC
From: Jim Shorney
Topic: 20505 Message: 20655

This may not be news to some, but another thing I discovered recently is with a properly working board you can adjust the IF Gain pot for exactly S-9 at 50 uV after you have completed the ACG/S-Meter alignments.

Yet another undocumented factory change seems to have been the removal of R1120 (8.2K, next to L1101) to provide a little more IF gain. This may affect the ability to make the above adjustment if R1120 is still in place.

73

-Jim
NU0C

On 01 May 2014 08:05:02 -0700, damico@... wrote:

>
>
> Ok, I did itâ☐¦
> I replaced the 2nd IF board ver.1 of my TR-7 with a newer board ver.2 (that I got from a second TR7 that I bought - for parts - at a very low price). First, I replaced the 8 electrolytic capacitors with fresh ones, then I modified the PBT board by replacing/removing the two resistors to adapt the BFO level (thanks everybody for the hint). I finished the work aligning the IFs and the AGC / S-meter circuit. The board worked immediately, and my impression is that the audio quality is better (ok, it maybe a placebo effect :-))â☐¦ also the action of the AGC seems to be smoother.
>
>
> One thing that can be of general interest is that on BOTH boards (i.e. the old ver. 1 and the new ver. 2) I had to replace the same defective (noisy) transistor Q1113 (2N3904), the preamplifier in the audio stage. It causes a continuous low-frequency rumble/crackling, that is most audible when the RF gain is set at minimum (i.e. completely CCW). The rumble level was independent on the volume setting, indicating that the problem was beyond the volume pot. If you are experiencing something like that on your TR7, you know who the culprit isâ☐¦ I wonder if this is something related only to the AF stage, or it is a common problem with aging 2N3904sâ☐¦. this would be a nightmare, since Drake used A LOT of those transistors in the TR7â☐¦
>
>
> Again, thanks everybody for the hints and suggestions !
>
>
>
> 73,
> Michele
>
>
>
>
>[Non-text portions of this message have been removed]

>
>

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

20656. Re: [DrakeRadio] 2b Re: TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 04:21:11 UTC
From: Jim Shorney
Topic: 20604 Message: 20656

I still have a working record player. I should mess with some people's minds
and make up a "Drake" label for it...

73

-Jim
NU0C

On Thu, 01 May 2014 11:03:35 -0400, Garey Barrell wrote:

> I know, "what's a 'tone arm'"...
>part of a 'record player' ..

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20657. Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:05:33 UTC
From: <dj_coffman@...>
Topic: 20531 Message: 20657

Lawrence,

I purchased two from Ebay sale number 201082605555. If you google KC9YS, the gentleman that sold these to me on Ebay, has a telephone number and email address linked from WB4HFN's website. These are NOS upgraded knobs and are extremely nice. I have yet to find a new skirt for them though.

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

20658. TR-4 B-Line PTO knob and skirt

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:16:53 UTC
From: <dj_coffman@...>
Topic: 20658 Message: 20658

I have purchased two new B-Line PTO knobs from KC9YS, very nice. Has anyone found any new knob skirts for these units?

If none are made, if there are any nice used ones in the group, I could also use two skirts.

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

20659. C4 Console case

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:25:55 UTC
From: <dj_coffman@...>
Topic: 20659 Message: 20659

I recently received a C4 console that is in rough shape. I would like to replace the case; I have noticed that the MS4 speaker case is close to the same size but obviously none of the holes are there and the speaker case is slotted underneath. One nice feature of the speaker case is that the back upper is rolled to provide support to the metal. The C4 case is very flimsy.

Does anyone have a line on a replacement case or has anyone tried to adapt an MS4 speaker case for this?

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

20660. Re: [DrakeRadio] TR-4C RIT Modification

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:45:13 UTC
From: Ken Winterling
Topic: 20594 Message: 20660

Steve,

If you follow the TR-4C J3 pins 5 & 8 to the AC-3/AC-4 power supply you will see those contacts are connected to the VOX RLY (VOX Relay) two-pin jack used for keying an amplifier. They are isolated contacts so you could use them to key a HB circuit if you are not using an amp.

I don't know how you plan to implement the up/down frequency offset but as Garey Barrell, K4OAH, has advised in the past, the TR-4C PTOs FSK terminal provides for a 170 Hz or 850 Hz shift but only shifts the frequency UP. It is unlikely you could get much more than 1 kHz deviation so this would not be of much use for RIT. Even if you devised a circuit to bias the offset to set the center as "zero" you wouldn't get much more than 500Hz deviation either side of the received frequency.

I applaud your plan to use the NB switch hole without making any marks or drilling the panel to install a control..

Good luck with the project and keep the list posted.

Ken
WA2LBI

On Thu, May 1, 2014 at 9:55 PM, Steve VK2SJA <vk2sja@...> wrote:

> Hi All,
>
> Playing around with ideas for adding RIT functionality to my TR-4C.
>
> Any solution is going to need an additional automatic switch that toggles
> on/off between RX and TX. For the moment I'm thinking small +12vdc relay.
>
> So my question is how to best to go about providing this switching
> signal/voltage.
>
> I note relay K1 has a switched pair going to pins 5 & 8 of J3. So I could
> use this. But what functionality/accessory is this used for normally?
>
> I can see that all XMIT K pins are grounded on TX. But I think from memory
> I measured something like 100+ volts floating on it when in RX. Can you,
> is it safe to, place a relay coil between +12v and XMIT K with a diode
> between relay and XMIT K to stop the 100+ volts from energizing the relay
> in RX? Or is this a dangerous and dumb idea?
>
> A better/best solution would be?
>
> Oh, and before anyone asks. The idea is to replace the non-functional NB

> On/Off switch with a RIT pot. *WITHOUT* marking or defacing the front
> panel in any way!! So the control will be labelled incorrectly. Don't
> care. My radio and I'll know what it does. Most importantly the mod can be
> reversed back to original at any time.
>
> 73, Steve.
>

[Non-text portions of this message have been removed]

20661. Re: [DrakeRadio] C4 Console case

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:46:37 UTC
From: Chgypsy@...
Topic: 20659 Message: 20661

In a message dated 5/2/2014 8:25:57 A.M. Eastern Daylight Time,
dj_coffman@... writes:

I recently received a C4 console that is in rough shape. I would like to
replace the case; I have noticed that the MS4 speaker case is close to the
same size but obviously none of the holes are there and the speaker case is
slotted underneath.

Does anyone have a line on a replacement case ... Doug - N9XTF
Hi Doug,
Can't tell you yet. get me as close as you can the width and height of
the C4 box, then how much depth would you need.... and yes, no slots. Carl
WD8NHK

[Non-text portions of this message have been removed]

20662. RE: [DrakeRadio] C4 Console case

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:54:32 UTC
From: Doug Coffman
Topic: 20659 Message: 20662

Carl,

The case measurements are hard to get exact as there is some deformation.

W = 10 ¾ inside measurement

H = 5 ¼ inside measurement

Depth = 11 1/8☐ outside and has a ½☐ inset so the face is set in as with the other Drake gear.

Do you have aftermarket boxes or what are you looking at?

Thanks,

Doug ☐ N9XTF

From: Chgypsy@... [mailto:Chgypsy@...]
Sent: Friday, May 2, 2014 8:47 AM
To: DrakeRadio@yahoogroups.com
Cc: dj_coffman@...
Subject: Re: [DrakeRadio] C4 Console case

In a message dated 5/2/2014 8:25:57 A.M. Eastern Daylight Time,
dj_coffman@... <mailto:dj_coffman@...> writes:

I recently received a C4 console that is in rough shape. I would like to
replace the case; I have noticed that the MS4 speaker case is close to the
same size but obviously none of the holes are there and the speaker case is
slotted underneath.

Does anyone have a line on a replacement case ... Doug - N9XTF

Hi Doug,

Can't tell you yet. get me as close as you can the width and height of the
C4 box, then how much depth would you need.... and yes, no slots. Carl
WD8NHK

[Non-text portions of this message have been removed]

20663. Re: [DrakeRadio] 2b Re: TR4 plate meter bounce

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:58:51 UTC
From: Garey Barrell
Topic: 20604 Message: 20663

RECORD PLAYER??.... I still have 300 'albums'! I think I may be a 'retrotechnologist'!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Shorney wrote:
> I still have a working record player. I should mess with some people's minds
> and make up a "Drake" label for it...
>
> 73
>
> -Jim
> NU0C
>
> On Thu, 01 May 2014 11:03:35 -0400, Garey Barrell wrote:
>
>> I know, "what's a 'tone arm'"...
>> part of a 'record player' ..
>

20664. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 12:59:16 UTC
From: Steve Wedge
Topic: 20531 Message: 20664

Pretty sure that's who I bought from. $25 shipped.

Looks wicked nice on my R-4B!

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: dj_coffman@...
Sent: Friday, May 02, 2014 8:05 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Lawrence,

I purchased two from Ebay sale number 201082605555. If you google KC9YS, the gentleman that sold these to me on Ebay, has a telephone number and email address linked from WB4HFN's website. These are NOS upgraded knobs and are extremely nice. I have yet to find a new skirt for them though.

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20665. Re: [DrakeRadio] Misc 4 line parts

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 13:23:13 UTC
From: Chgypsy@...
Topic: 20665 Message: 20665

Hi All,

Looking through my Drake stuff boxes. While looking for pieces for a fellow listee.

4 line parts, its a bunch of little miscellaneous stuff, actually most came from when Donnie Garrett was supplying, but now are shown on _www.2bradioparts.com_ (http://www.2bradioparts.com) .

3- # 755 bulbs
1- # 12 bulb
1- Set of shaft couplers with allen screws & wrench
1 -R4A recap kit (13 tube)
1- PTO rubber sleeve
1- ....piece. (not set).. blue difuser for the dial
3- bags worth (total 36) 6-32 black phillips cabinet screws

The above are all new.

Also have a (new to me) set of 3 6GJ5's, GE's (in RCA boxes) that were the back up for the ones I ran in a TR4.

I'm not real interested in sending a bunch of mail stuff out, anyone want to make an offer for the new stuff as one package? You pay shipping. Same deal on the tubes.

I also have a partial used TR4 carcass, cabinets are sold , and a complete set of tubes (some new some used) for an R4

OH YES !
1 used 6JB6 (sylvania) along with two 6KM6's - GE's (that's how one TR4 came in...working too!)

Carl WD8NHK

[Non-text portions of this message have been removed]

20666. R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 16:49:15 UTC
From: lane denune
Topic: 20666 Message: 20666

Drake Doctors ; Please advise me about any capacitors in particular that should be changed out during a general service and realignment bench visit. Also I need a recommendation for the filter capacitor replacement as to the supplier of those. My technician friend is concerned about the black tubular caps he has found in both my A and C. Normally he is my vintage Collins tech but was in need of some work this winter so there you go...
Thank You in advance for your input...73...lane de n8aft..sk ..

[Non-text portions of this message have been removed]

20667. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 17:44:35 UTC
From: Michael Engstrom
Topic: 20499 Message: 20667

Thank you Jim for your insights. The plate choke was the first thing I checked for continuity. Just an ohm or 2 resistance if memory serves. While I was in there I cleaned up silver connections at the top mounting screw and the high-voltage interlock to eliminate any possible problems there.
On May 1, 2014 5:30 PM, "Jim Wiley" <jwiley@...> wrote:

>
>
> Maybe the plate RF choke is open. Just because you have b+ where the
> meter reads, it doesn't meant it is actually getting to the plates.
> Unplug the amp, wait at least 5 minutes for capacitors to discharge,
> disconnect the high voltage cable from the Millen connector on the back
> of the amp, and measure with an ohmmeter from the center pin of the HV
> jack to each plate, individually. Should be only a few ohms, might be
> close to zero ohms. Anything more than a few ohms indicates a problem.
>
> An open plat4e choke would still allow grid current to be drawn when
> the amp is driven, but no power would be produced. The small amount of
> power you are seeing might be attributable to feed through power.
>
> - Jim, KL7CC
>
> On 5/1/2014 1:39 PM, Garey Barrell wrote:
> >
> > The explanation for the Grid current is that power is going into the
> > tubes, but not being
> > coupled out. For an as yet undetermined reason, you have a couple of
> > very large diode
> > rectifiers with an input network that matches them to a 50 ohm input.
> > So the RF is 'detected'
> > and passed to ground, displayed as Grid current.
> >
> > This would normally indicate a mismatch on the output network, and as
> > a result not coupling
> > power to the load.
> >
> > This is normally the result of no Plate voltage, an open DC
> > block/coupling cap between the tube
> > Plates and the Output matching network.
> >
> > If you had a return loss bridge, you could connect a 2-2.5k resistor
> > from the DC block cap to
> > ground, (disconnecting the tube Plate caps or removing the caps,) and
> > then apply RF at 50 ohms
> > through a return loss bridge to the OUTPUT antenna connector and see

> > if you could adjust the
> > PLATE and LOAD caps for maximum return loss. If you have a big enough
> > resistor, you could
> > actually drive RF from your transmitter and adjust for minimum
> > reflected power.
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> > I still think we're missing something obvious, but I'm #&^$^% if "I"
> > can see it from here.! :-)
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Michael Engstrom wrote:
> > > Thank you Stu. A lot of really good ideas to implement. I need to up my
> > > troubleshooting equipment with a capacitor tester.
> > >
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> > > What would cause those tubes to draw so much grid current with only
> > 5 - 10
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> > 5 - 10
> > > watts of drive?
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> > > the problem may be solved...
> > > On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:
> > >
> > >>
> > >> P.S to my previous post:
> > >>
> > >> Step 2 may require that you use a matching network/transmatch/"tuner"
> > >> between your exciter and the connection point I suggested. The
> > impedance
> > >> at
> > >> that point is likely beyond what your exciter will properly load.
> > >>
> > >> Stu
> > >>

> > >> ----- Original Message -----
> > >> From: "w7fe" <w7fe@...>
> > >> To: <DrakeRadio@yahoogroups.com>
> > >> Sent: Thursday, May 01, 2014 12:55 PM
> > >> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
> > >>
> > >>> OK, how about this?
> > >>>
> > >>> Step 1: First isolate and check the loading capacitor with a
> > capacitance
> > >>> meter to verify that each section produces the correct capacitance
> > change
> > >>> when rotated. If OK, restore the connections and go to step 2.
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> > >>> Step 2: Lift the connection from the C22-C24 junction to the tube
> > >>> filaments.
> > >>> Connect a piece of RG-8X co-ax through a suitable, known good .01 uF
> > >>> capacitor to that point and put a PL-259 at the other end. Connect
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> > >>> the exciter and operate the amplifier, thereby either eliminating or
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> > >>> Step 3: Obviously if it works correctly with this setup, the problem
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> > >>> Step 4 (grasping at straws): Perhaps there is a possibility of center
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> > >>> might be enough to cause tuning issues.
> > >>>
> > >>> 73 de Stu, W7FE
> > >>>
> > >>>
> > >
> > >

>
> [Non-text portions of this message have been removed]
>
>
>

[Non-text portions of this message have been removed]

20668. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 17:48:33 UTC
From: Michael Engstrom
Topic: 20499 Message: 20668

Tnx Jim, I think that possibility may have been eliminated when I tried a second set of known good 3-500's in those L4B sockets.
On May 1, 2014 6:00 PM, "James Scribner" <swpthg@...> wrote:

>
>
> Not unlikely for pins on 3-500Z to come soldered from the filament heat
> either. Just a thought as have seen many!
> 73 Jim
> W5SWM
>
> [Non-text portions of this message have been removed]
>
>
>

[Non-text portions of this message have been removed]

20669. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 17:54:47 UTC
From: Michael Engstrom
Topic: 20499 Message: 20669

Copy that Jim. I'm pretty sure if the high voltage interlock was "called to action" it would have functioned properly... but the two contact points to ground did need cleaning however.

On May 1, 2014 6:47 PM, "Jim Wiley" <jwiley@...> wrote:

>
>
> More on my last suggestion: Since you will have the covers off for
> the plate choke resistance test, be sure to hold down the interlock
> shorting switch (normally pressed down by the cabinet cover), or else
> ohmmeter readings could be meaningless. If the interlock is released,
> it will short the B+ line to ground. The test needs to be made with
> the interlock depressed (contact points open) .
>
> Forgot to mention that the first time around.
>
> - Jim, KL7CC
>
>
>

[Non-text portions of this message have been removed]

20670. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 17:57:01 UTC
From: Michael Engstrom
Topic: 20499 Message: 20670

I know what you mean Garey, there are so many variables with this amplifier problem it feels like 5 projects for me!
On May 1, 2014 6:48 PM, "Garey Barrell" <k4oah@...> wrote:

>
>
> Jim -
>
> Good idea.... I 'think' we checked for HV at the plate caps early on, but
> I've got about five
> different 'projects' going at the moment and they're starting to run
> together.... :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Jim Wiley wrote:
> > Maybe the plate RF choke is open. Just because you have b+ where the
> > meter reads, it doesn't meant it is actually getting to the plates.
> > Unplug the amp, wait at least 5 minutes for capacitors to discharge,
> > disconnect the high voltage cable from the Millen connector on the back
> > of the amp, and measure with an ohmmeter from the center pin of the HV
> > jack to each plate, individually. Should be only a few ohms, might be
> > close to zero ohms. Anything more than a few ohms indicates a problem.
> >
> > An open plat4e choke would still allow grid current to be drawn when
> > the amp is driven, but no power would be produced. The small amount of
> > power you are seeing might be attributable to feed through power.
> >
> > - Jim, KL7CC
> >
> > On 5/1/2014 1:39 PM, Garey Barrell wrote:
> >> The explanation for the Grid current is that power is going into the
> >> tubes, but not being
> >> coupled out. For an as yet undetermined reason, you have a couple of
> >> very large diode
> >> rectifiers with an input network that matches them to a 50 ohm input.
> >> So the RF is 'detected'
> >> and passed to ground, displayed as Grid current.
> >>
> >> This would normally indicate a mismatch on the output network, and as

> >> a result not coupling
> >> power to the load.
> >>
> >> This is normally the result of no Plate voltage, an open DC
> >> block/coupling cap between the tube
> >> Plates and the Output matching network.
> >>
> >> If you had a return loss bridge, you could connect a 2-2.5k resistor
> >> from the DC block cap to
> >> ground, (disconnecting the tube Plate caps or removing the caps,) and
> >> then apply RF at 50 ohms
> >> through a return loss bridge to the OUTPUT antenna connector and see
> >> if you could adjust the
> >> PLATE and LOAD caps for maximum return loss. If you have a big enough
> >> resistor, you could
> >> actually drive RF from your transmitter and adjust for minimum
> >> reflected power.
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> >> I still think we're missing something obvious, but I'm #&^$^% if "I"
> >> can see it from here.! :-)
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> >> Michael Engstrom wrote:
> >>> Thank you Stu. A lot of really good ideas to implement. I need to up my
> >>> troubleshooting equipment with a capacitor tester.
> >>>
> >>> Meantime... I keep thinking:
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> >>> What would cause those tubes to draw so much grid current with only
> >> 5 - 10
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> >> no or
> >>> low plate voltage. But the arithmetic proves I have plate voltage.
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> >>> What would cause those tubes to draw so much grid current with only
> >> 5 - 10
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> >>> the problem may be solved...
> >>> On May 1, 2014 1:33 PM, "w7fe" <w7fe@...> wrote:

> >>>
> >>>> P.S to my previous post:
> >>>>
> >>>> Step 2 may require that you use a matching network/transmatch/"tuner"
> >>>> between your exciter and the connection point I suggested. The
> >> impedance
> >>>> at
> >>>> that point is likely beyond what your exciter will properly load.
> >>>>
> >>>> Stu
> >>>>
> >>>> ----- Original Message -----
> >>>> From: "w7fe" <w7fe@cox.net>
> >>>> To: <DrakeRadio@yahoogroups.com>
> >>>> Sent: Thursday, May 01, 2014 12:55 PM
> >>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
> >>>>
> >>>>> OK, how about this?
> >>>>>
> >>>>> Step 1: First isolate and check the loading capacitor with a
> >> capacitance
> >>>>> meter to verify that each section produces the correct capacitance
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> >>>>> exposing the input circuitry as the problem area.
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> >>>>> Step 3: Obviously if it works correctly with this setup, the problem
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> >>>>> Step 4 (grasping at straws): Perhaps there is a possibility of center
> >>>>> conductor migration in any co-ax interconnections within the
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> >>>>> 73 de Stu, W7FE
> >>>>>
> >>>>>
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>
>
>

[Non-text portions of this message have been removed]

20671. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 17:58:22 UTC
From: Michael Engstrom
Topic: 20499 Message: 20671

Copy that Paul.
On May 1, 2014 7:13 PM, "Paul Dulaff" <pdulaff@embarqmail.com> wrote:

>
>
> Mike
>
> If the RF plate choke were open, then you would be drawing zero plate
> current under all conditions. I recall you had plate current so I would
> anticipate the plate choke has continuity.
>
> Paul - WB2NMI
>
> ----- Original Message -----
> From: Garey Barrell <k4oah@mindspring.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Thu, 01 May 2014 21:47:58 -0400 (EDT)
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> Jim -
>
> Good idea.... I 'think' we checked for HV at the plate caps early on, but
> I've got about five
>
> different 'projects' going at the moment and they're starting to run
> together.... :-)
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> 73, Garey - K4OAH
>
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> and TR-4/C Service Supplement CDs
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> <www.k4oah.com>
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> Jim Wiley wrote:
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> > Maybe the plate RF choke is open. Just because you have b+ where the
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> > Unplug the amp, wait at least 5 minutes for capacitors to discharge,
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> > disconnect the high voltage cable from the Millen connector on the back
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> > jack to each plate, individually. Should be only a few ohms, might be
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> > - Jim, KL7CC
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> >> rectifiers with an input network that matches them to a 50 ohm input.
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> >> So the RF is 'detected'
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> >> and passed to ground, displayed as Grid current.
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> >> Michael Engstrom wrote:
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> >>>>
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> >>>> Stu
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> >>>>
>
> >>>> ----- Original Message -----
>
> >>>> From: "w7fe" <w7fe@...>
>
> >>>> To: <DrakeRadio@yahoogroups.com>
>
> >>>> Sent: Thursday, May 01, 2014 12:55 PM
>
> >>>> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
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> >>>>
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> >>>>>

>
> >>>>> 73 de Stu, W7FE
>
> >>>>>
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> >>>>>
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> >>
>
> [Non-text portions of this message have been removed]
>
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[Non-text portions of this message have been removed]

20672. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:04:13 UTC
From: Michael Engstrom
Topic: 20499 Message: 20672

Jim -

This is really a good idea. At first opportunity I will check this. I think the idling current is lower than 200 mills... (L4B keyed with no input.) I want to say it's more like 100ma but I will check this.

On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:

>
>
> One final check -
>
> When the amplifier is "buttoned up", it should draw between 200 and 250
> milliamperes PLATE current when turned on and keyed (when the connector
> marked "vox relay" hot lead is shorted to ground). Make this test
> with NO RF driving power applied. If it does not do this, there is
> definitely something amiss in the b+ circuitry
>
> Another thought - it is possible that there is a wire (on the RF choke?)
> that is partially burned through, making enouigh connection for the b+
> meter to read, but failing open when you try to draw some real current.
>
> - Jim, KL7CC
>
>
>

[Non-text portions of this message have been removed]

20673. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:08:39 UTC
From: Michael Engstrom
Topic: 20499 Message: 20673

Tnx Jim.

I'll follow the high-voltage line from the input to the anode & make sure
all those connections are good.
On May 2, 2014 11:04 AM, "Michael Engstrom" <michael.engstrom.73@...>
wrote:

> Jim -
>
> This is really a good idea. At first opportunity I will check this. I
> think the idling current is lower than 200 mills... (L4B keyed with no
> input.) I want to say it's more like 100ma but I will check this.
> On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:
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>> meter to read, but failing open when you try to draw some real current.
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>> - Jim, KL7CC
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>>
>>
>

[Non-text portions of this message have been removed]

20674. Re: [DrakeRadio] R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:12:53 UTC
From: barcand@...
Topic: 20666 Message: 20674

Call Tom at Hayseed Hamfest (google it) and he can provide new can electrolytics that drop right in to replace those black cans. He can also provide a complete cap replacement kit for this caps that would be suspect...if you want.
Easy to deal with...good products...and I am in no way affiliated with Tom at Hayseed Hamfest, other than being a multiple-user satisfied customer.

Bernie in ND
WD0GMD

On Fri, May 2, 2014 11:49 am, lane denune wrote:
>
>
> Drake Doctors ; Please advise me about any capacitors in particular that
> should be changed out during a general service and realignment bench
> visit. Also I need a recommendation for the filter capacitor replacement
> as to the supplier of those. My technician friend is concerned about the
> black tubular caps he has found in both my A and C. Normally he is my
> vintage Collins tech but was in need of some work this winter so there you
> go...
> ?Thank You in advance for your input...73...lane de n8aft..sk? ..
>
> [Non-text portions of this message have been removed]
>
>

20675. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:25:41 UTC
From: Garey Barrell
Topic: 20499 Message: 20675

Michael -

I think you are correct on the low IDLE (relay closed, no drive) PLATE current.

Another consideration here is the brand of PA tube. Hopefully you have switched down to CW now
to lessen the strain on everything. With the CW HV (about 1800 VDC):

The "NOS" Amperex brand 3-500Z tubes draw about 100 mA per pair at idle.

"NEW" Amperex brand (China) 3-500Z tubes draw about 170 mA per pair at idle.

Eimac 3-500Z brand 3-500Z tubes draw about 170 mA per pair at idle.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael Engstrom wrote:
> Jim -
>
> This is really a good idea. At first opportunity I will check this. I think
> the idling current is lower than 200 mills... (L4B keyed with no input.) I
> want to say it's more like 100ma but I will check this.
>

20676. Re: [DrakeRadio] R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:30:00 UTC
From: Garey Barrell
Topic: 20666 Message: 20676

Lane -

Replace all the electrolytic capacitors. These are the ones with polarity indicated on them.

The other epoxy filled caps (black, white or yellow) are high quality film type capacitors and
do NOT require replacement as a matter of course.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

lane denune wrote:
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> Thank You in advance for your input...73...lane de n8aft..sk ..
>
>

20677. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 18:59:12 UTC
From: Paul Dulaff
Topic: 20499 Message: 20677

Mike

A common fault which could account for both a high apparent grid current reading and low idling current would be increased resistance in the cathode return to ground. A higher resistance here increases the negative bias on the grid, thus reducing idling current. Also this resistance incorporates the shunt for the grid current meter. If the resistance goes up, so does the grid meter reading.

Check R8 and confirm it measures 1 ohm.

Check voltage from cathode to ground when idling and see if there is only 1 ohm resistance to ground.

Paul - WB2NMI

----- Original Message -----
From: Michael Engstrom <michael.engstrom.73@...>
To: DrakeRadio@yahoogroups.com
Sent: Fri, 02 May 2014 14:08:39 -0400 (EDT)
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

Tnx Jim.

I'll follow the high-voltage line from the input to the anode & make sure

all those connections are good.

On May 2, 2014 11:04 AM, "Michael Engstrom" <michael.engstrom.73@gmail.com>

wrote:

> Jim -

>

> This is really a good idea. At first opportunity I will check this. I

> think the idling current is lower than 200 mills... (L4B keyed with no

> input.) I want to say it's more like 100ma but I will check this.

> On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:

>

>>

>>

>> One final check -

>>

>> When the amplifier is "buttoned up", it should draw between 200 and 250

>> milliamperes PLATE current when turned on and keyed (when the connector

>> marked "vox relay" hot lead is shorted to ground). Make this test

>> with NO RF driving power applied. If it does not do this, there is

>> definitely something amiss in the b+ circuitry

>>

>> Another thought - it is possible that there is a wire (on the RF choke?)

>> that is partially burned through, making enouigh connection for the b+

>> meter to read, but failing open when you try to draw some real current.

>>

>> - Jim, KL7CC

>>

>>

>>

>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20678. Re: R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 19:28:43 UTC
From: <k6ctw@...>
Topic: 20666 Message: 20678

I used hayseed hamfest for the basic electrolytics package.

http://hayseedhamfest.com/cartlist.html?cat=5
http://hayseedhamfest.com/cartlist.html?cat=5

I used mouser for the non-polarized caps and precision carbon film resistors.

As you've probably seen, get the CD from Gary, K4OAH on the version of the R-4A you have (11 vs 13 tube) as it is really a benefit when doing a restoration.

Note that the big electrolytic can will require removal of the PTO because you are going to need to get a BIG soldering iron in there to get at the old one that's soldered in.

Good luck and if your R-4A turns out as nice as the one I restored you are in for a LOT of hours of great listening.

By the way, I have an article on my restoration coming out in ER in the next month or two.

73 - ken k6ctw

[Non-text portions of this message have been removed]

20679. Re: R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 20:05:29 UTC
From: <rochep@...>
Topic: 20666 Message: 20679

I used 2bradioparts to get the paper cap/non-can electrolytic caps and all seems fine.

Paul

[Non-text portions of this message have been removed]

20680. Re: [DrakeRadio] R4A and C Re-Bop.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 22:29:37 UTC
From: Steve Wedge
Topic: 20666 Message: 20680

If you're doing a refurb, consider replacing the electrolytics.

Hayseed Hamfest has kits that include the smaller electrolytics for a modest $4 over the price of the cans alone. It's worth it for the convenience!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 2, 2014, at 12:49 PM, lane denune <LanerDaner@...> wrote:
>
>
>
> Drake Doctors ; Please advise me about any capacitors in particular that should be changed out during a general service and realignment bench visit. Also I need a recommendation for the filter capacitor replacement as to the supplier of those. My technician friend is concerned about the black tubular caps he has found in both my A and C. Normally he is my vintage Collins tech but was in need of some work this winter so there you go...
> Thank You in advance for your input...73...lane de n8aft..sk ..
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20681. WTB Drake filters and cable

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 22:24:41 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20681 Message: 20681

Hi folks

I want to buy :

Drake SL-500
Drake SL-300
cable between tr7-r7

ik1qhbfastwebnet.it

Paul IK1QHB

[Non-text portions of this message have been removed]

20682. WTB drake filters and cable (sri)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-02 22:43:12 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20682 Message: 20682

Hi folks

I want to buy :

Drake SL-500
Drake SL-300
cable between TR7-R7

ik1qhbfastwebnet.it

Paul IK1QHB

[Non-text portions of this message have been removed]

20683. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 01:11:40 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20683

Garey

Yes..........have a DMM (Tenma model 42715)

Put the meter across the s-meter.............reads 0.170 vdc with no signals.

and reads 0.180 vdc with rf gain fully ccw.

?

Thanks Bill
N1CQ

[Non-text portions of this message have been removed]

20684. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 02:20:09 UTC
From: Garey Barrell
Topic: 20448 Message: 20684

Bill -

OK. Please leave old messages intact. I have five of these 'projects' going at the moment, and
it helps me keep them straight.

I think your S-Meter is just hanging around S-2 regardless. Pull the lead closest to the left
side of the chassis off of the meter, (DO NOT unscrew the terminal, unsolder the wire,) and measure the resistance with your ohmmeter. Should read about 200 ohms. Check resistor R13A up
on the meter slide switch. Check it's resistance with your meter as well. While you have the
meter lead disconnected measure the voltage between the center lug of the meter switch, (the one
R13A is soldered to,) and the meter wire you removed.

I believe you checked the DC voltages on V11, 13 and 17, and they were within reason. Check the voltage on Pin 1 of V11 at both ends of the RF GAIN control rotation.

You may have a bad meter.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> Garey
>
>
> Yes..........have a DMM (Tenma model 42715)
>
>
> Put the meter across the s-meter.............reads 0.170 vdc with no signals.
>
> and reads 0.180 vdc with rf gain fully ccw.
>
>
>

20685. Re: [DrakeRadio] WTB drake filters and cable (sri)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 03:02:07 UTC
From: Jim Shorney
Topic: 20682 Message: 20685

WB4HFN manufactures the cable:

http://www.wb4hfn.com/SALES/ForsaleHomePage.htm

Or you can fabricate your own from information found online.

Filters appear regularly on eBay.

73

-Jim
NU0C

On Sat, 3 May 2014 00:43:12 +0200, Paolo Emanuelli IK1QHB wrote:

>Hi folks
>
>I want to buy :
>
>Drake SL-500
>Drake SL-300
>cable between TR7-R7
>
>ik1qhbfastwebnet.it
>
>Paul IK1QHB
>
>
>[Non-text portions of this message have been removed]
>
>

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20686. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 03:15:36 UTC
From: ALAN PHILLIPS
Topic: 20531 Message: 20686

Hi Lawrence, I am the drake fan that sells the main tuning knobs. I have just a few left, they are new stock not NOS. Thanks for the kind words from the other guys that have purchased the knobs from me.

73's Al kc9ys
On Friday, May 2, 2014 7:59 AM, Steve Wedge <w1es1982@triad.rr.com> wrote:

Pretty sure that's who I bought from. $25 shipped.

Looks wicked nice on my R-4B!

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: dj_coffman@...
Sent: Friday, May 02, 2014 8:05 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Lawrence,

I purchased two from Ebay sale number 201082605555. If you google KC9YS, the gentleman that sold these to me on Ebay, has a telephone number and email address linked from WB4HFN's website. These are NOS upgraded knobs and are extremely nice. I have yet to find a new skirt for them though.

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20687. Re: [DrakeRadio] TR5 settings ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 12:55:11 UTC
From: Chgypsy@...
Topic: 20687 Message: 20687

Hello to the group,

For those of you who use that TR5 you have.

EG; For cw full output on my gain knob is about 9:30, that's a whopping 93 indicated Watts btw, percolating nicely.

In any case if you are using for SSB is my question.

Where is your TR5's mic gain based on a clock at the (by the book) ALC action 2-4 S units on the meter?
Or just where are you running the gain knob? AND What..generally... is your indicated output wattage?

I know that most of us use non peak watt meters.

For those of you who are used to a TR7...no such nicety... on a TR5 its the same knob, stacked pots for CW & MIc gain.
Thank you in advance. Obviously I think I have a problem.
73's Carl WD8NHK

[Non-text portions of this message have been removed]

20688. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 13:55:39 UTC
From: LAWRENCE MATHESON
Topic: 20531 Message: 20688

Al,
Wish you had the skirts. Looks like those are impossible to find.

Thanks,

Lawrence

On Fri, May 2, 2014 11:15 PM, ALAN PHILLIPS wrote:
>
> Hi Lawrence, I am the drake fan that sells the main tuning knobs. I
> have just a few left, they are new stock not NOS. Thanks for the
> kind words from the other guys that have purchased the knobs from me.
>
> 73's Al kc9ys
> On Friday, May 2, 2014 7:59 AM, Steve Wedge <w1es1982@triad.rr.com> wrote:
>
>
> Pretty sure that's who I bought from. $25 shipped.
>
> Looks wicked nice on my R-4B!
>
> Steve Wedge, W1ES/4
>
> Time flies like an arrow; fruit flies like a banana.
>
> All my computers have my signature with various pearls of wisdom
> appended thereto.
>
> From: dj_coffman@yahoo.com
> Sent: Friday, May 02, 2014 8:05 AM
> To: DrakeRadio@...m
> Subject: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B
>
> Lawrence,
>
> I purchased two from Ebay sale number 201082605555. If you google
> KC9YS, the gentleman that sold these to me on Ebay, has a telephone
> number and email address linked from WB4HFN's website. These are NOS
> upgraded knobs and are extremely nice. I have yet to find a new skirt
> for them though.
>
> 73,
>
> Doug - N9XTF
>
> [Non-text portions of this message have been removed]

>
> [Non-text portions of this message have been removed]
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> [Non-text portions of this message have been removed]
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20689. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 14:03:02 UTC
From: Chgypsy@...
Topic: 20531 Message: 20689

wa4bhk@... writes:

Wish you had the skirts. Looks like those are impossible to find.
Lawrence
Suggest going through ebay for 4 line parts, and contacting the scrappers
direct and asking.

Wait for Dayton Hamvention in two weeks.
Carl WD8NHK

[Non-text portions of this message have been removed]

20690. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 16:31:49 UTC
From: Doug Coffman
Topic: 20531 Message: 20690

Lawrence,

If you find two skirts extra to your needs, let me know. I am in need of two myself.

Doug

Sent from my iPhone

> On May 3, 2014, at 9:55, LAWRENCE MATHESON <wa4bhk@...> wrote:
>
> Al,
> Wish you had the skirts. Looks like those are impossible to find.
>
> Thanks,
>
> Lawrence
>
> On Fri, May 2, 2014 11:15 PM, ALAN PHILLIPS wrote:
> >
> > Hi Lawrence, I am the drake fan that sells the main tuning knobs. I
> > have just a few left, they are new stock not NOS. Thanks for the
> > kind words from the other guys that have purchased the knobs from me.
> >
> > 73's Al kc9ys
> > On Friday, May 2, 2014 7:59 AM, Steve Wedge <w1es1982@...> wrote:
> >
> >
> > Pretty sure that's who I bought from. $25 shipped.
> >
> > Looks wicked nice on my R-4B!
> >
> > Steve Wedge, W1ES/4
> >
> > Time flies like an arrow; fruit flies like a banana.
> >
> > All my computers have my signature with various pearls of wisdom
> > appended thereto.
> >
> > From: dj_coffman@...
> > Sent: Friday, May 02, 2014 8:05 AM
> > To: DrakeRadio@yahoogroups.com
> > Subject: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B
> >
> > Lawrence,
> >
> > I purchased two from Ebay sale number 201082605555. If you google

> > KC9YS, the gentleman that sold these to me on Ebay, has a telephone
> > number and email address linked from WB4HFN's website. These are NOS
> > upgraded knobs and are extremely nice. I have yet to find a new skirt
> > for them though.
> >
> > 73,
> >
> > Doug - N9XTF
> >
> > [Non-text portions of this message have been removed]
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20691. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 16:45:28 UTC
From: Jack Antonio
Topic: 20531 Message: 20691

On 5/3/2014 12:31 PM, Doug Coffman wrote:> Lawrence,
>
> If you find two skirts extra to your needs, let me know. I am in need
of two myself.
>
> Doug

As am I, one for an R4B and one for an RV-4 (not an RV-4C)

Jack Antonio WA7DIA/4

20692. Re: [DrakeRadio] Re: WTB Knob and Skirt for TR 4 or R4 B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 18:42:59 UTC
From: Dan Galligan
Topic: 20531 Message: 20692

This sure sounds, to me, like a potential project, for one of our more industrious group members, to have some reproductions made.

Hint, hint!!!

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

> On May 3, 2014, at 11:45, Jack Antonio <scr287@...> wrote:
>
> On 5/3/2014 12:31 PM, Doug Coffman wrote:> Lawrence,
>>
>> If you find two skirts extra to your needs, let me know. I am in need
> of two myself.
>>
>> Doug
>
>
> As am I, one for an R4B and one for an RV-4 (not an RV-4C)
>
> Jack Antonio WA7DIA/4
>
>
>
> ------------------------------------
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> Yahoo Groups Links
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20693. tr7dude?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 20:25:23 UTC
From: geoffrey mendelson
Topic: 20693 Message: 20693

Does anyone have the email address of tr7dude on eBay?

I ordered some components from him and the package cleared customs last week. Unfortunately it was in Luxembourg. I am in Israel.

I sent him an eBay message, but it may not get there.

I hope if he complains at his post office, they may be able to do something, if something needs to be done.

TIA.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20694. Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 23:22:41 UTC
From: Daniel Broniatowski
Topic: 20694 Message: 20694

Hi gang,

I was using my Drake T4xb today and tuned it up without a problem. Strangely, the mic was clipping (transmitting) a bit but I thought nothing of it because in the past, I occasionally had this problem and I think it had to do with two of the contacts squashed together in the mic plug. Yet, every time I would rotate the plug a bit in the jack, the problem would go away and when I opened it, I never found a short. So, I put the plug back together and then used the rig for many months problem free (no clipping) and didn't touch it.

Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a moderate buzz through the R4b and the S meter was deflected around s5. The power supply was then emitting a smell akin to when I blew up a dummy load last year. I immediately turned off the transmitter and the buzz went away.

Did I blow up something somehow?

73,

Daniel N8QWI

Daniel Broniatowski, D.M.A.
Parent tested, Child approved
Brookline, Newton, and Watertown, MA
www.maestromusiciansacademy.com
--
Music to Warm the Heart - Greater Boston
Weddings, Special Events, and Charitable Causes
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[Non-text portions of this message have been removed]

20695. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 23:42:56 UTC
From: Steve Wedge
Topic: 20694 Message: 20695

S5 is not normal in the receiver, if it's muted. The whole scenario is likely coincidental, but your problem may likely be in the receiver and not the transmitter.

No amount of skullduggery in the microphone could cause the transmitter or receiver to smoke.

You have old radios, and something went "pfffffft!" Given the S-5 description, check the receiver first.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Daniel Broniatowski
Sent: Saturday, May 03, 2014 7:22 PM
To: drakeradio@yahoogroups.com
Subject: [DrakeRadio] Funny ac-4 smell

Hi gang,

I was using my Drake T4xb today and tuned it up without a problem. Strangely, the mic was clipping (transmitting) a bit but I thought nothing of it because in the past, I occasionally had this problem and I think it had to do with two of the contacts squashed together in the mic plug. Yet, every time I would rotate the plug a bit in the jack, the problem would go away and when I opened it, I never found a short. So, I put the plug back together and then used the rig for many months problem free (no clipping) and didn't touch it.

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Did I blow up something somehow?

73,

Daniel N8QWI

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--

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[Non-text portions of this message have been removed]

20696. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 23:43:41 UTC
From: Paul Kraemer
Topic: 20694 Message: 20696

Daniel
In a word YES
Paul K0UYA
Electronic Specialties
Home to the celebrated AC-4 PS rebuild kit
Hopefully it is not too late for the AC-4 to be saved by my kit

---
From: "Daniel Broniatowski" <kinor80@...>
Sent: Saturday, May 03, 2014 6:22 PM
To: <drakeradio@yahoogroups.com>
Subject: [DrakeRadio] Funny ac-4 smell

> Hi gang,
>
> I was using my Drake T4xb today and tuned it up without a problem.
> Strangely, the mic was clipping (transmitting) a bit but I thought nothing
> of it because in the past, I occasionally had this problem and I think it
> had to do with two of the contacts squashed together in the mic plug. Yet,
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> away and when I opened it, I never found a short. So, I put the plug back
> together and then used the rig for many months problem free (no clipping)
> and didn't touch it.
>
> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a
> moderate buzz through the R4b and the S meter was deflected around s5. The
> power supply was then emitting a smell akin to when I blew up a dummy load
> last year. I immediately turned off the transmitter and the buzz went
> away.
>
> Did I blow up something somehow?
>
> 73,
>
> Daniel N8QWI
>
> Daniel Broniatowski, D.M.A.
> Parent tested, Child approved
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20697. Re: [DrakeRadio] tr7dude?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-03 23:53:18 UTC
From: Chgypsy@...
Topic: 20693 Message: 20697

Geoff,

TR7dude is "John Kriner".
John is a very reputable person btw.
jkriner@... (mailto:jkriner@...)

Carl wd8nhk

In a message dated 5/3/2014 4:25:30 P.M. Eastern Daylight Time,
geoffreymendelson@... writes:

Does anyone have the email address of tr7dude on eBay?

I ordered some components from him and the package cleared customs last
week. Unfortunately it was in Luxembourg. I am in Israel.
I sent him an eBay message, but it may not get there.
I hope if he complains at his post office, they may be able to do
something, if something needs to be done.
Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

Yahoo Groups Links

[Non-text portions of this message have been removed]

20698. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:04:42 UTC
From: GALE STEWARD
Topic: 20694 Message: 20698

By all means get one of Paul's kits. I have them in both of my AC-4 supplies. Easy to install, you won't be sorry...

73, Stew K3ND

_____
From: Paul Kraemer <elespe@...>
To: drakeradio@yahoogroups.com
Sent: Saturday, May 3, 2014 7:43 PM
Subject: Re: [DrakeRadio] Funny ac-4 smell

Daniel
In a word YES
Paul K0UYA
Electronic Specialties
Home to the celebrated AC-4 PS rebuild kit
Hopefully it is not too late for the AC-4 to be saved by my kit

---
From: "Daniel Broniatowski" <kinor80@...>
Sent: Saturday, May 03, 2014 6:22 PM
To: <drakeradio@yahoogroups.com>
Subject: [DrakeRadio] Funny ac-4 smell

> Hi gang,
>
> I was using my Drake T4xb today and tuned it up without a problem.
> Strangely, the mic was clipping (transmitting) a bit but I thought nothing
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> every time I would rotate the plug a bit in the jack, the problem would go
> away and when I opened it, I never found a short. So, I put the plug back
> together and then used the rig for many months problem free (no clipping)
> and didn't touch it.
>
> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a
> moderate buzz through the R4b and the S meter was deflected around s5. The
> power supply was then emitting a smell akin to when I blew up a dummy load
> last year. I immediately turned off the transmitter and the buzz went
> away.
>
> Did I blow up something somehow?
>
> 73,
>
> Daniel N8QWI

>
> Daniel Broniatowski, D.M.A.
> Parent tested, Child approved
> Brookline, Newton, and Watertown, MA
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20699. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:25:42 UTC
From: <kinor80@...>
Topic: 20694 Message: 20699

Thanks for the advice Stew. How can you be sure this would solve the problem permenantly (or for the forseable future)? How can I be sure the supply won't blow again? Could the radio have caused any of this?

Best,
Daniel

---In DrakeRadio@yahoogroups.com, <k3nd@...> wrote :

By all means get one of Paul's kits. I have them in both of my AC-4 supplies. Easy to install, you won't be sorry...

73, Stew K3ND

From: Paul Kraemer <elespe@... mailto:elespe@...>
To: drakeradio@yahoogroups.com mailto:drakeradio@yahoogroups.com
Sent: Saturday, May 3, 2014 7:43 PM
Subject: Re: [DrakeRadio] Funny ac-4 smell

Daniel
In a word YES
Paul K0UYA
Electronic Specialties
Home to the celebrated AC-4 PS rebuild kit
Hopefully it is not too late for the AC-4 to be saved by my kit

---
From: "Daniel Broniatowski" <kinor80@... mailto:kinor80@...>
Sent: Saturday, May 03, 2014 6:22 PM
To: <drakeradio@yahoogroups.com mailto:drakeradio@yahoogroups.com>
Subject: [DrakeRadio] Funny ac-4 smell

> Hi gang,
>
> I was using my Drake T4xb today and tuned it up without a problem.
> Strangely, the mic was clipping (transmitting) a bit but I thought nothing
> of it because in the past, I occasionally had this problem and I think it
> had to do with two of the contacts squashed together in the mic plug. Yet,
> every time I would rotate the plug a bit in the jack, the problem would go
> away and when I opened it, I never found a short. So, I put the plug back
> together and then used the rig for many months problem free (no clipping)
> and didn't touch it.
>
> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a
> moderate buzz through the R4b and the S meter was deflected around s5. The
> power supply was then emitting a smell akin to when I blew up a dummy load

> last year. I immediately turned off the transmitter and the buzz went
> away.
>
> Did I blow up something somehow?
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> 73,
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> Daniel N8QWI
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Yahoo Groups Links

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[Non-text portions of this message have been removed]

20700. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:31:56 UTC
From: Richard Knoppow
Topic: 20694 Message: 20700

-----Original Message-----
>From: Daniel Broniatowski <kinor80@...>
>Sent: May 3, 2014 4:22 PM
>To: "drakeradio@yahoogroups.com" <drakeradio@yahoogroups.com>
>Subject: [DrakeRadio] Funny ac-4 smell
>
>Hi gang,
>
>I was using my Drake T4xb today and tuned it up without a problem. Strangely, the mic was clipping (transmitting) a bit but I thought nothing of it because in the past, I occasionally had this problem and I think it had to do with two of the contacts squashed together in the mic plug. Yet, every time I would rotate the plug a bit in the jack, the problem would go away and when I opened it, I never found a short. So, I put the plug back together and then used the rig for many months problem free (no clipping) and didn't touch it.
>
>Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a moderate buzz through the R4b and the S meter was deflected around s5. The power supply was then emitting a smell akin to when I blew up a dummy load last year. I immediately turned off the transmitter and the buzz went away.
>
>Did I blow up something somehow?
>
>73,

I agree with the others that its probably the AC-4. Disconnect the power supply and disconnect the receiver from the transmitter, does the receiver work properly as a stand alone?
Open the AC-4 and use you nose to find where the odor is coming from. May be a bad capacitor, if so you will likely see the residue around it. Caps often have an ammonia odor or a fish odor. Resistors usually have the familiar iodine odor of Bakelite. If its a transformer it more likely has a burning wax odor. Anyway, my may be able to localize it. There are a couple of kits being sold for rebuilding the AC-4. I have experience with the older one. Either is a good idea because if one part has given up others are likely not far behind. I can't explain the S-meter reading on the receiver if it was in external mute, that's why I suggest testing the receiver.
As far as the mic jack, its possible for corrosion of a contact to cause some rectification. I've encountered this effect a few times but usually on headphones. Check this stuff out and let us know what you find.

20701. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:33:58 UTC
From: Richard Knoppow
Topic: 20694 Message: 20701

-----Original Message-----
>From: kinor80@...
>Sent: May 3, 2014 5:25 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] Funny ac-4 smell
>
>Thanks for the advice Stew. How can you be sure this would solve the problem permenantly (or for the forseable future)? How can I be sure the supply won't blow again? Could the radio have caused any of this?
>
> Best,
> Daniel
>
I can't think of any way the receiver could have damaged the transmitter power supply.

20702. 4- Line Receiver Wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:46:38 UTC
From: Ed Purvis
Topic: 20702 Message: 20702

I am looking for a nice, working receiver. Prefer an R-4B but will consider an A.

Please respond with what you have, condition and price.

Thanks,
Ed WA4NJY
Bradenton, Fl
wa4njy@...

[Non-text portions of this message have been removed]

20703. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 00:56:28 UTC
From: GALE STEWARD
Topic: 20694 Message: 20703

Well, you end up putting all new caps, diodes, and a resistor or two. It wouldn't fix the problem if the power transformer was bad but that's not likely.

http://harbachelectronics.com/shop/drake/es4ac-4-ac-4-power-supply-rebuild-kit/

73, Stew K3ND

From: Richard Knoppow <1oldlens1@...>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 3, 2014 8:33 PM
Subject: Re: [DrakeRadio] Funny ac-4 smell

-----Original Message-----
>From: kinor80@...
>Sent: May 3, 2014 5:25 PM
>To: DrakeRadio@yahoogroups.com
>Subject: Re: [DrakeRadio] Funny ac-4 smell
>
>Thanks for the advice Stew. How can you be sure this would solve the problem permenantly (or for the forseable future)? How can I be sure the supply won't blow again? Could the radio have caused any of this?
>
> Best,
> Daniel
>
    I can't think of any way the receiver could have damaged the transmitter power supply.

Yahoo Groups Links

[Non-text portions of this message have been removed]

20704. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 01:09:21 UTC
From: Dan Galligan
Topic: 20694 Message: 20704

Dan,
Yes, it is highly likely that you cooked something in the AC-4. I just spent this morning, installing one of Electronic Specialties ES4AC-4 kits, as I have done now, three previous times. I have had, and installed, both it, and the older, more well known AC-4R kit, from Mike, at the Heathkit Shop. While both are fine kits, my opinion is hands down, the ES4AC-4, is the easier, more readily user serviceable, installation. They both get the job done, and done well, if installed correctly. But, from my experience, the Heathkit Shop's AC-4R kit, is not quite as universal. Drake used different transformers, with different sized bolts, and the AC-4R, to the best of my knowledge, only comes with the most popular sized hardware, to install to the transformer. Not that it can't be modified easily, to fit any, but the ES4AC-4, fits any AC-4, regardless of the components Drake used. And, the ES4AC-4 is a little less costly, and more user friendly, for installation. Again, it is my preference, based on my opinion. Others, may disagree.
Some like Windows, some like Apple. Some like Ford, some like Chevy.
All that said, either will do the job for you, if the transformer, in your AC-4 didn't cook.
As for the receiver and transmitter issues, I think you have two other problems, one each, in each of those two pieces. I'd start with the AC-4, then work on checking if the receiver works well, as a stand-alone. Lastly, the easiest to fix, will probably be getting the mic plug issue resolved. A little De-OxIt, will probably cure that.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states.
Will Rogers

Sent from my iPad.

> On May 3, 2014, at 18:22, Daniel Broniatowski <kinor80@...> wrote:
>
> Hi gang,
>
> I was using my Drake T4xb today and tuned it up without a problem. Strangely, the mic was clipping (transmitting) a bit but I thought nothing of it because in the past, I occasionally had this problem and I think it had to do with two of the contacts squashed together in the mic plug. Yet, every time I would rotate the plug a bit in the jack, the problem would go away and when I opened it, I never found a short. So, I put the plug back together and then used the rig for many months problem free (no clipping) and didn't touch it.
>
> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a moderate buzz through the R4b and the S meter was deflected around s5. The power supply was then emitting

a smell akin to when I blew up a dummy load last year. I immediately turned off the transmitter and the buzz went away.
>
> Did I blow up something somehow?
>
> 73,
>
> Daniel N8QWI
>
> Daniel Broniatowski, D.M.A.
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20705. Re: Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 01:15:53 UTC
From: <rochep@...>
Topic: 20694 Message: 20705

If you like to use Drake transmitters, I think you will want an AC4 that you can really trust. So you need new caps, resistors, and (probably) new diodes. Just but a re-build kit. They are GREAT. Once your AC4 is fixed you can worry about the TX. The RX is another beast.

paul

[Non-text portions of this message have been removed]

20706. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 01:23:50 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20706

OK Garey

Think I figured out how to include all the old messages for reference.

Resistance across S-meter reads only about 5 ohms with one lead removed. (p.s. I happen to have another used EICO meter - same style, Model 13 ?? - its movement reads 900 ohms. So I tried it in the TR4C.....on power up, this meter floated past full scale and stayed there.) Could not zero this meter.

R13A reads 26 ohms with the meter lead still disconnected.

Voltage on pin 1 of V11 is -0.80 vdc with RF gain full CW and -11.8 +/- with gain CCW. Apparently, that tube is responding OK ??

Only goofy voltage was pin 6 on V17 (the infamous 6AQ5).....I read 218, spec is 155.....

FYI .....this radio is actually a TR4Cw.....not the RIT version though.....

Thanks
Bill

[Non-text portions of this message have been removed]

20707. R4B mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 01:54:23 UTC
From: GRANT YOUNGMAN
Topic: 20707 Message: 20707

I?m generally not one who likes to put ?mods" in otherwise fine radios. There are exceptions of course here and there. I stumbled upon these relatively minimalist changes to the R4B purported to slightly improve AGC action, overall gain, and audio: http://www.ing.unitn.it/~fontana/R4bmod.pdf

Any one have any words of wisdom on these or tried them?

Thanks .. Grant NQ5T

[Non-text portions of this message have been removed]

20708. Want to buy: MC50 microphone

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 01:57:47 UTC
From: Joe W2KJ
Topic: 20708 Message: 20708

Howdy Fellow Drakesters:

Looking for a Kenwood MC50 microphone in excellent condition with original 4 pin plug.

If you have one that is excess to your needs I'm interested.

73, Joe W2KJ
TR7, C-Line, TR4C

20709. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 02:19:15 UTC
From: Paul Kraemer
Topic: 20694 Message: 20709

Daniel et al
I wanted to qualify that I certainly didn't mean you caused the power supply problem in any way as some may have taken it that way.

It was purely bad karma and bad electrons meeting old parts. It happens with electronics old and new but particularly old.

A few years ago after a long run of good luck and thinking that some old gear would be a survivor if it was brought up slowly and carefully and babied along I changed my mind on the subject. Too many "it was working last time I used it" auction purchases I guess. I recently acquired such an AC-4. It worked, about 10 minutes, and then a capacitor blew and the smoke rolled out. Fortunately I was right there to pull the plug before serious harm came to the supply or the TR-4C. Normally I would have rebuilt it immediately on acquiring it but I wanted to take some measurements on a stock unit prior to modifications. Never got that far.

That is why I produced the AC-4 rebuild kit as I did. I wanted a reliable product that represented good value, was super easy to install by most anyone with basic soldering skill and the ability to match colors.

I am always amazed after installing one of the kits or rebuilding any old power supply how they all run cooler and quieter and I can leave them un-attended without fear of consequences.

Paul K0UYA

From: "Paul Kraemer" <elespe@...>
Sent: Saturday, May 03, 2014 6:43 PM
To: <drakeradio@yahoogroups.com>
Subject: Re: [DrakeRadio] Funny ac-4 smell

> Daniel
> In a word YES
> Paul K0UYA
> Electronic Specialties
> Home to the celebrated AC-4 PS rebuild kit
> Hopefully it is not too late for the AC-4 to be saved by my kit
>
>
> ---
> From: "Daniel Broniatowski" <kinor80@...>
> Sent: Saturday, May 03, 2014 6:22 PM
> To: <drakeradio@yahoogroups.com>
> Subject: [DrakeRadio] Funny ac-4 smell
>

>> Hi gang,
>>
>> I was using my Drake T4xb today and tuned it up without a problem.
>> Strangely, the mic was clipping (transmitting) a bit but I thought
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>> of it because in the past, I occasionally had this problem and I think it
>> had to do with two of the contacts squashed together in the mic plug.
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>> every time I would rotate the plug a bit in the jack, the problem would
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>> away and when I opened it, I never found a short. So, I put the plug back
>> together and then used the rig for many months problem free (no clipping)
>> and didn't touch it.
>>
>> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a
>> moderate buzz through the R4b and the S meter was deflected around s5.
>> The
>> power supply was then emitting a smell akin to when I blew up a dummy
>> load
>> last year. I immediately turned off the transmitter and the buzz went
>> away.
>>
>> Did I blow up something somehow?
>>
>> 73,
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>> Daniel N8QWI
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20710. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 02:50:37 UTC
From: Garey Barrell
Topic: 20448 Message: 20710

Bill -

OK. You have a bad meter. Your substitute meter is TOO sensitive. Should read about 200 ohms.

Meters show up from time to time on eBay, but a want on the list will probably produce one faster and at a better price.

The V11 voltage is behaving normally.

The V17 Screen voltage is an error on the Drake Voltage list. Yours is correct.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... wrote:
> OK Garey
>
> Think I figured out how to include all the old messages for reference.
>
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>
> Resistance across S-meter reads only about 5 ohms with one lead removed. (p.s. I happen to have another used EICO meter - same style, Model 13 ?? - its movement reads 900 ohms. So I tried it in the TR4C.....on power up, this meter floated past full scale and stayed there.) Could not zero this meter.
>
> R13A reads 26 ohms with the meter lead still disconnected.
>
> Voltage on pin 1 of V11 is -0.80 vdc with RF gain full CW and -11.8 +/- with gain CCW. Apparently, that tube is responding OK ??
>
> Only goofy voltage was pin 6 on V17 (the infamous 6AQ5).....I read 218, spec is 155.....
>
> FYI .....this radio is actually a TR4Cw.....not the RIT version though.....
>
>
> Thanks
> Bill
>
>

20711. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 02:57:12 UTC
From: Garey Barrell
Topic: 20694 Message: 20711

Daniel -

You most likely have two separate problems.

The receiver probably has a bad electrolytic, with the BIAS one(C91) the most suspect.

All these electrolytic capacitors have exceeded their expected lifetime by a couple of decades
and should be replaced. Several have suggested the kits available from a couple of list members
for the AC-4. The receiver electrolytics are available in a kit from <hayseedhamfest.com>.

All are highly recommended!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Daniel Broniatowski wrote:
> Hi gang,
>
> I was using my Drake T4xb today and tuned it up without a problem. Strangely, the mic was clipping (transmitting) a bit but I thought nothing of it because in the past, I occasionally had this problem and I think it had to do with two of the contacts squashed together in the mic plug. Yet, every time I would rotate the plug a bit in the jack, the problem would go away and when I opened it, I never found a short. So, I put the plug back together and then used the rig for many months problem free (no clipping) and didn't touch it.
>
> Anyway, I called CQ with SWR 1.3:1 and after depressing the mic, I hear a moderate buzz through the R4b and the S meter was deflected around s5. The power supply was then emitting a smell akin to when I blew up a dummy load last year. I immediately turned off the transmitter and the buzz went away.
>
> Did I blow up something somehow?
>
> 73,
>
> Daniel N8QWI
>

20712. Re: [DrakeRadio] R4B mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 03:11:55 UTC
From: Garey Barrell
Topic: 20707 Message: 20712

Grant -

These sorts of mods keep cropping up, too bad Drake couldn't hire some of these 'engineers'!
:-) Strangely, all these 'improvements' rarely come with any useful measurement data. My bike
always sounded better with a couple of playing cards being flapped by the spokes! :-)

Messing with the gain distribution in a well designed receiver is hardly ever a good idea. When
a receiver is sensitive enough that the background noise on a quiet band goes up when you connect an antenna, that's about as good as it gets.

Changing IF gain is unlikely to 'improve' AVC action, since it already has a 60 dB+ dynamic range. The S-Meter might peak higher, unless you recalibrate it.

Everybody wants their receivers to sound like a 1960's hi-fi rather than a communications receiver. Extending the low frequency response doesn't really hurt anything, but it does expose
any hum that may be present.

Tweechies own..... It's your receiver and you can do whatever you want to it!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

GRANT YOUNGMAN wrote:
> I’m generally not one who likes to put “mods" in otherwise fine radios. There are exceptions of course here and there. I stumbled upon these relatively minimalist changes to the R4B purported to slightly improve AGC action, overall gain, and audio:
http://www.ing.unitn.it/~fontana/R4bmod.pdf
>
> Any one have any words of wisdom on these or tried them?
>
> Thanks .. Grant NQ5T
>
>

20713. Re: [DrakeRadio] R4B mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 03:45:07 UTC
From: Paul Christensen
Topic: 20707 Message: 20713

I saw these mods when converting my R4B but really did not want to alter the RF/IF gain distribution. Even my change to all 6V tubes resulted in identical RF/IF performance.

However, I did slow down the fast AGC setting. Apart from that, my changes largely affect the PS, detector and audio circuits. It is a (gulp) hi-fi result with very little cabinet heat and no noise, buzz nor hum in the headphones.

While I like the changes, I have not published them for fear that too many folks would dig in, get into serious trouble, then not get back to where they started.

Paul, W9AC

Sent from my iPhone5

> On May 3, 2014, at 9:54 PM, GRANT YOUNGMAN <nq5t@...> wrote:
>
> I’m generally not one who likes to put “mods" in otherwise fine radios. There are exceptions of course here and there. I stumbled upon these relatively minimalist changes to the R4B purported to slightly improve AGC action, overall gain, and audio: http://www.ing.unitn.it/~fontana/R4bmod.pdf
>
> Any one have any words of wisdom on these or tried them?
>
> Thanks .. Grant NQ5T
>
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20714. Re: [DrakeRadio] R4B mods

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 04:21:41 UTC
From: GRANT YOUNGMAN
Topic: 20707 Message: 20714

I hadn?t actually planned to install these. Just found ?em and thought I?d ask the question.

I always liked the playing cards flapping away on my bicycle. Better than making that motor noise with the tongue :)

Grant NQ5T

On May 3, 2014, at 10:11 PM, Garey Barrell <k4oah@...> wrote:

> Grant -
>
> These sorts of mods keep cropping up, too bad Drake couldn't hire some of these 'engineers'!

[Non-text portions of this message have been removed]

20715. R4B hum problem and fix

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 07:11:02 UTC
From: Richard Knoppow
Topic: 20715 Message: 20715

Some time ago I began to notice hum on CW signals. It did not seem to be continuous so I thought it might be moduluation hum due to nearby power lines. Eventually it got worse and I realized it had to be the receiver. I checked the power supply but it was fine. Well, I finally noticed that the hum occured only when the noise blanker was turned on. I was fooled for a while because the hum did not appear on the calibrator signal but the noise blanker is turned off when the calibrator is on. Well, it turned out to be a bad 12AX7 tube, probably heater to cathode leak. I substitued a tube from another receiver which cleared it up. Today I got a new tube and replaced it. No hum. I decided to see if the new tube made any change in the effectiveness of the blanker. Not sure but I think it does. I have tried a couple of methods of testing the blanker including Garrey's idea of scraping a file with a wire. That works but is not very controlable. I use a Tektronix pulse generator. This does a pretty good job of mimicing the sort of pulse noise that old type automobile ignition systems made. I think the noise blanker was designed mostly with this kind of noise in mind. Well, it works very well. I tested both to see what happened to the s-meter reading and also how much effect the noise had on fairly weak signals. The effectiveness on the AVC level seems to depend partly on the AVC speed. In slow the efffect is very considerable, in fast, the AVC seems to follow the pulse and reduce the effectiveness of the blanker. With no signal in the background the pulse generator runs the AVC up to about 15db over S-9, turning on the blanker knocks it down to about s-4. There is still some noise there but much less. In manual RF gain the noise goes from being quite loud to rather faint. When the AVC is in fast the meter jumps around and the effect trough the speaker seems to indicate that the AVC is trying to compensate for the action of the blanker. On weak signals the blanker will make a signal that is almost completely wiped out by the pulse quite readable, its a significant difference. I tried this on both SSB and CW signals and got very similar results.
The blanker does not work on the familiar frying noise that is so common in the city. I think it works best on short, high amplitude pulses with short rise and fall times and is deaf to signals on the same order of amplitude as the signal. Pulse noise can desensitize a receiver by dominating the AVC and I think the blanker was meant mostly to remove this sort of noise.

The type of blanker used in the R4B is similar in principle to that used in the Hallicrafters SX-28 but there is a very large difference in the way its applied. In the SX-28 the blanker follows the IF filtering, in the R4B it preceeds the tunable filter. This is important because the narrower the bandwidth where the blanker operates the more the pulses will be stretched and lowered in amplitude. This is just was is NOT wanted, the blanker must see the pulse in its full glory and apply its blanking signal where the bandwidth is wide enough not to stretch it. The blanker in the SX-28 reputedly never worked very well and a look at the circuit diagram will show why. The concept was correct but the application was not. The one in the R4B is applied correctly and works quite well.
I can not think of a way to duplicate the noise produced by lighening storms. This is usually a non-periodic crashing noise, probably of very wide bandwidth. However, it can have quite high amplitude especially if the storm is close. Standard diode clipper limiters have the same trouble with this that they do with other noise, namely that if set to knock it down reasonably they begin to produce a lot of distortion on AM and are just not effective when the BFO is on. I think when we had the last thunder storm locally the blanker was already on the fritz so I don't know if it works on this kind of noise.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20716. Re: Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 10:09:39 UTC
From: <kinor80@...>
Topic: 20694 Message: 20716

Apologies-I see why the confusion...I used the words "depressing" when I meant "letting go". The s5 buzz came when I let to of the ptt on my mic. Maybe this will help!! Thanks everyone for the advice thus far!

[Non-text portions of this message have been removed]

20717. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 10:23:40 UTC
From: <kinor80@...>
Topic: 20694 Message: 20717

Ok- just to clarify the receiver situation...the s5 buzzing went away when I turned off the transmitter. I doubt the receiver is a factor in this. Hope this helps. Daniel

[Non-text portions of this message have been removed]

20718. Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 14:37:54 UTC
From: <fasan5@...>
Topic: 20718 Message: 20718

From a silent key I got the radio I was dreaming of in the sixties when I was a teenager – the legendary Drake 2B. After a long sleep it dust and dirt it came alive when I had cleaned the switches and replaced some of the tubes (V1-V3) and the 40 meter x-tal.

It is now loud and clear on 40 meters peaking S9+10 with the calibrator on, and the audio is absolutely wonderful. But on 80 and 20 meters signals are much lower. With the calibrator on I have S7 on 80 meters and S6 meters on 20 meters. However, the signals on these two bands sound stronger than the S-meter readings suggest. Gassy tube or an AVC issue?

With a VTM connected to the AVC plug on the rear I have adjusted the AVC voltage to – 1.5 VDC. With the RF gain turned fully CCW, the AVC voltage increases to -12 VDC. I have tweaked coils L1 and L3 to maximum on 80, 40 and 20 meters. Again using the calibrator signal I have tweaked T1 and T2 to maximum.

The preselector can be tweaked to maximum on 80, 40 and 20 meters, so apparently it is not a preselector issue. What may give an idea of where to look is the fact that on 40 meters SSB the passband control must be tweaked 180 degrees from its position on 80 and 40 meters to catch the right sideband (LSB).

Any advice will be appreciated.

Peter OZ8CTH

[Non-text portions of this message have been removed]

20719. Re: [DrakeRadio] WTB drake filters and cable (sri)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 14:41:52 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20682 Message: 20719

I will made my own cable; WB4HFN don't has that cable in products...

Hope to find the filters on ebay...
as usual, when you need a something, nothing appears on ebay...
when you don't need...there's full of parts on ebay....as usual!!! hi

Paul IK1QHB

Il giorno 03/mag/2014, alle ore 05:02, Jim Shorney ha scritto:

>
> WB4HFN manufactures the cable:
>
> http://www.wb4hfn.com/SALES/ForsaleHomePage.htm
>
> Or you can fabricate your own from information found online.
>
> Filters appear regularly on eBay.
>
> 73
>
> -Jim
> NU0C
>
> On Sat, 3 May 2014 00:43:12 +0200, Paolo Emanuelli IK1QHB wrote:
>
> >Hi folks
> >
> >I want to buy :
> >
> >Drake SL-500
> >Drake SL-300
> >cable between TR7-R7
> >
> >ik1qhbfastwebnet.it
> >
> >Paul IK1QHB
> >
> >
> >[Non-text portions of this message have been removed]
> >
> >
>
> --
>
> "A deep understanding of reality is exactly the same thing as laziness." - Wally,

"Dilbert"
>
>

[Non-text portions of this message have been removed]

20720. Re: [DrakeRadio] R4B hum problem and fix

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 15:02:50 UTC
From: Garey Barrell
Topic: 20715 Message: 20720

Richard -

My test method was never intended as an evaluation method, merely a way of telling if the Blanker is working or not. It's a pretty stable circuit, and it either works, or it doesn't.!
The TEK generator is a far more 'refined' way of testing, and can give you 'real' numbers to
work with. My TEK pulse generator is a 181, so the piece of wire is much easier to handle.!!

The effect is MUCH easier to see in FAST AVC, or even NO AVC. The Blanker is punching holes in
the signal, and the AVC increases the gain to try and bring it back up!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> I have tried a
> couple of methods of testing the blanker including Garrey's
> idea of scraping a file with a wire. That works but is not
> very controlable. I use a Tektronix pulse generator.

> The effectiveness on the
> AVC level seems to depend partly on the AVC speed. In slow
> the efffect is very considerable, in fast, the AVC seems to
> follow the pulse and reduce the effectiveness of the
> blanker. With no signal in the background the pulse
> generator runs the AVC up to about 15db over S-9, turning on
> the blanker knocks it down to about s-4.

20721. Re: [DrakeRadio] Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 15:38:40 UTC
From: Garey Barrell
Topic: 20718 Message: 20721

Peter -

First, keep in mind that the 2-B is an 80M receiver with a crystal controlled converter in front
of it for the other bands. It's unusual that it would work better on 40M than on 80M! This would indicate dirty switch contacts as primary suspects.

You don't mention what meter you used to set the -1.5 V AVC threshold, but unless it is a VTVM
or a 'good' DMM with an input impedance of 11M or better.... The 'fully CCW' RF GAIN setting
should produce more like -18 VDC, indicating the meter is loading the circuit. Even with an 11M
meter, the procedure in the next to last paragraph of the TROUBLESHOOTING section of the manual
is recommended. The threshold adjustment should be -1.35 VDC.......

Replace V2 with a 6EA8.

The Passband Tuner has been mis-aligned. Someone may have just put the knob on incorrectly. Check by rotating through it's full range while watching the four slugs at the rear of the tuner. When the four slugs are fully extended, the knob should be pointing to the right or '3
o'clock'. If it's not, remove the knob and examine the fiber reducer inside the knob. It is slit along it's length, and this slit MUST be at right angles ''90 degrees' from the set screw.
If this doesn't resolve the PASSBAND problem, you may need to realign the tuner. Also, be sure
the 405 kHz and 50 kHz oscillators are exactly on frequency.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

fasan5@... wrote:
> From a silent key I got the radio I was dreaming of in the sixties when I was a teenager – the legendary Drake 2B. After a long sleep it dust and dirt it came alive when I had cleaned the switches and replaced some of the tubes (V1-V3) and the 40 meter x-tal.
>
> It is now loud and clear on 40 meters peaking S9+10 with the calibrator on, and the audio is absolutely wonderful. But on 80 and 20 meters signals are much lower. With the calibrator on I have S7 on 80 meters and S6 meters on 20 meters. However, the signals on these two bands sound stronger than the S-meter readings suggest. Gassy tube or an AVC issue?

>
> With a VTM connected to the AVC plug on the rear I have adjusted the AVC voltage to – 1.5 VDC. With the RF gain turned fully CCW, the AVC voltage increases to -12 VDC. I have tweaked coils L1 and L3 to maximum on 80, 40 and 20 meters. Again using the calibrator signal I have tweaked T1 and T2 to maximum.
>
> The preselector can be tweaked to maximum on 80, 40 and 20 meters, so apparently it is not a preselector issue. What may give an idea of where to look is the fact that on 40 meters SSB the passband control must be tweaked 180 degrees from its position on 80 and 40 meters to catch the right sideband (LSB).
>
> Any advice will be appreciated.
>
> Peter OZ8CTH
>
>
>
>

20722. Re: [DrakeRadio] T11 for Mike's R4A

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 16:23:34 UTC
From: Mike Bryce
Topic: 20431 Message: 20722

Whoa, what a week!

12 hour shifts seven days a week. They're going to kill this old man.

Finally got around to digging back into the R4A with the fubar BFO.

Now, let me back up. Last sunday I called Jeff *Covelli on a un-related issue. In passing, I mentioned if he had the missing T11 transformer as I could not get the BFO to work.*

Told him I had good voltages on the transistor and replaced the suspect capacitors and even mentioned that I didn't feel they were the problem.

*He told he, he'd bet it didn't work. *

Of course I said yes, still no joy.

So... the fix?

Jeff said to add a 10 to 47 mfd capacitor from the wire that goes from the mode wafer to the T11 transformer.

I did. I used a 22 uf at 160 volts (yes, the line is only 12, but I had this one in stock)

Now, I have 16 v pp on the oscillator and the receiver is now working.

I don't know why it worked, or why is even should had worked.

But it did.

That took care of the R4A.

Now. I decided to dig into my fubar TR4.

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20723. Re: [DrakeRadio] R4B hum problem and fix

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 16:43:01 UTC
From: Richard Knoppow
Topic: 20715 Message: 20723

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 04, 2014 8:02 AM
Subject: Re: [DrakeRadio] R4B hum problem and fix

> Richard -
>
> My test method was never intended as an evaluation method,
> merely a way of telling if the
> Blanker is working or not. It's a pretty stable circuit,
> and it either works, or it doesn't.!
> The TEK generator is a far more 'refined' way of testing,
> and can give you 'real' numbers to
> work with. My TEK pulse generator is a 181, so the piece
> of wire is much easier to handle.!!
>
> The effect is MUCH easier to see in FAST AVC, or even NO
> AVC. The Blanker is punching holes in
> the signal, and the AVC increases the gain to try and
> bring it back up!
>
>
> 73, Garey - K4OAH
> Glen Allen, VA

As I said the file and wire method works and will test
if the blanker works. I wanted something more repeatable
and tried a pulse generator using a bug and inductance, that
produced something close to ignition noise. When I got the
pulse generator I tried it and found it would give me a
good, repeatable test. Plus, because the pulse width and rep
rate are easily changed, it would give some idea of what
sort of signals the blanker works on. I found that the
effect is very obvious in manual RF gain, there it makes the
noise virtually disappear. In fast AVC you can see the
difference but the AVC tends to follow the residual pulses.
On slow AVC its again very obvious. Checks on actual
signals show that the blanker will make signals that are
completely blanketed by noise quite readable.
I think if you are used to the conventional diode type
noise clipper the noise blanker may be disappointing because
it does not do much for the usual frying power line noise,
but it does work and the diode limiters do not really do
much except to reduce noise in the absence of a signal. They

are useless on CW. These days I rarely ever hear ignition noise but it was once very common and a bane especially on the higher bands.
I don't really know how long that tube has been bad but I think for quite a while. The hum was not very bad but was noticeable on CW. Probably on SSB too but perhaps my hearing problem masked it. I am happy that I finally figured it out. I will check this tube later on my TV-7 and see if the problem shows up on it. I remember testing all the tubes in the past and not finding anything so it may be one of those problems tube testers don't show.
The R4B is really a remarkable receiver and has all the features one needs. I was listening to the contest last night and found that the combination of the pass band tuner and notch filter would pull out nearly anything. What a lot of performance Drake managed to pack into that little box.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20724. Re: [DrakeRadio] Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 16:49:07 UTC
From: Richard Knoppow
Topic: 20694 Message: 20724

----- Original Message -----
From: <kinor80@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 04, 2014 3:23 AM
Subject: Re: [DrakeRadio] Funny ac-4 smell

> Ok- just to clarify the receiver situation...the s5
> buzzing went away when I turned off the transmitter. I
> doubt the receiver is a factor in this. Hope this helps.
> Daniel
>
Yes, that makes it clear. Its important to isolate the
problem and to make sure there are not two problems masking
each other. The most likely cause, as has been pointed out
a couple of times, is the power supply. While there may be
only one bad cap in it all are old so the best solution is
to replace all with a kit. The kits also have other
components which are subject to ageing. Once done the supply
will be good for a couple of decades.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20725. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 18:08:19 UTC
From: w7fe
Topic: 20499 Message: 20725

Mike,

So what was the outcome on this problem? Haven't seen any postings since the one below from Paul. May we presume that replacement of R8 resulted is normal operation?

73 de Stu, W7FE

----- Original Message -----
From: "Paul Dulaff" <pdulaff@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 02, 2014 11:59 AM
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> Mike
>
> A common fault which could account for both a high apparent grid current
> reading and low idling current would be increased resistance in the
> cathode return to ground. A higher resistance here increases the negative
> bias on the grid, thus reducing idling current. Also this resistance
> incorporates the shunt for the grid current meter. If the resistance goes
> up, so does the grid meter reading.
>
> Check R8 and confirm it measures 1 ohm.
>
> Check voltage from cathode to ground when idling and see if there is only
> 1 ohm resistance to ground.
>
> Paul - WB2NMI
>
>
> ----- Original Message -----
> From: Michael Engstrom <michael.engstrom.73@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Fri, 02 May 2014 14:08:39 -0400 (EDT)
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
>
>
>
>
> Tnx Jim.
>
>
> I'll follow the high-voltage line from the input to the anode & make sure
>

> all those connections are good.
>
> On May 2, 2014 11:04 AM, "Michael Engstrom"
> <michael.engstrom.73@...>
>
> wrote:
>
>
>> Jim -
>
>>
>
>> This is really a good idea. At first opportunity I will check this. I
>
>> think the idling current is lower than 200 mills... (L4B keyed with no
>
>> input.) I want to say it's more like 100ma but I will check this.
>
>> On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:
>
>>
>
>
>>>
>
>>>
>
>>> One final check -
>
>>>
>
>>> When the amplifier is "buttoned up", it should draw between 200 and 250
>
>>> milliamperes PLATE current when turned on and keyed (when the connector
>
>>> marked "vox relay" hot lead is shorted to ground). Make this test
>
>>> with NO RF driving power applied. If it does not do this, there is
>
>>> definitely something amiss in the b+ circuitry
>
>>>
>
>>> Another thought - it is possible that there is a wire (on the RF choke?)
>
>>> that is partially burned through, making enouigh connection for the b+
>
>>> meter to read, but failing open when you try to draw some real current.
>
>>>
>
>

>>> - Jim, KL7CC
>
>>>
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>>>
>
>>>
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>>
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>
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20726. Cable info for 7 line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 19:10:19 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20726 Message: 20726

Good evening folks

I wanted to ask a question to the more experienced:

the connection cables between the tr7 and r7 leaving the cable accessories that kind should it be?
I am referring to the two wires that go from the socket "external antenna" and the "external receiver" from tr7, to the "external receiver" and "main" in the r-7 ...
Coaxial cables with 52 or other impedence are required, or just use shielded cables?
Can i use .... random lengths, or lengths calibrated as in the lines c and b?
The cable accessories ... must be cut to length calculated or random?

Many thanks to all

Paul IK1QHB

20727. Re: Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 19:27:36 UTC
From: <fasan5@...>
Topic: 20718 Message: 20727

Hi Garey,

Following your instruction the passband problem is now solved , and the AVC threshold voltage is now - 1.35 VDC on a VTVM. RF GAIN still produces no more than - 12 VDC. A 6EA8 to replace the 6U8 (V2) has been ordered and will arrrive in a few days. The 405 kHz and 50 kHz oscillators will be checked in my local radio club.

73
Peter OZ8CTH

[Non-text portions of this message have been removed]

20728. Re: [DrakeRadio] Re: Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 19:59:05 UTC
From: Garey Barrell
Topic: 20718 Message: 20728

Peter -

That -12 VDC reading is ok. Too much 'memory trust' going on here.!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

fasan5@... wrote:
> Hi Garey,
>
>
> Following your instruction the passband problem is now solved , and the AVC threshold voltage is now - 1.35 VDC on a VTVM. RF GAIN still produces no more than - 12 VDC. A 6EA8 to replace the 6U8 (V2) has been ordered and will arrrive in a few days. The 405 kHz and 50 kHz oscillators will be checked in my local radio club.
>
>
> 73
> Peter OZ8CTH
>
>
>
> [Non-text portions of this message have been removed]
>
>
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> ------------------------------------
>
> Yahoo Groups Links
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>

20729. Re: Funny ac-4 smell

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 20:07:54 UTC
From: <kinor80@...>
Topic: 20694 Message: 20729

Thanks..will order a kit

[Non-text portions of this message have been removed]

20730. message for don wb5hak

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 21:46:38 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20730 Message: 20730

hi don i can't sent email...it come back!
i try to reply here!

no problem! i will be happy to find both 500 and 300 hz... together from the same place:-)!
let me know.... i can wait!
i could receive the r-7 in some days and i can wait for sure!
i have to do many mods.... and in the end i put the filters:-)

ciao don

IK1QHB Paolo Emanuelli

20731. Re: [DrakeRadio] message for don wb5hak

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 22:18:36 UTC
From: Don Cunningham
Topic: 20730 Message: 20731

No problem, Paolo. I'll contact you next time with my Yahoo account and
let you know what I find out.
73,
Don, WB5HAK
On 5/4/2014 4:46 PM, Paolo Emanuelli IK1QHB wrote:
>
> hi don i can't sent email...it come back!
> i try to reply here!
>
> no problem! i will be happy to find both 500 and 300 hz... together
> from the same place:-)!
> let me know.... i can wait!
> i could receive the r-7 in some days and i can wait for sure!
> i have to do many mods.... and in the end i put the filters:-)
>
> ciao don
>
> IK1QHB Paolo Emanuelli
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

20732. T4X-B PA won't tune

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 22:37:34 UTC
From: Brian and Beth Miller
Topic: 20732 Message: 20732

Operating on 20m lately I noticed that the plate current dip did not correspond to maximum output power; it was just a little off so

I decided to tweak the neutralization on my T4x-B. I performed the adjustment as per the instruction manual. I subsequently checked it at 20m where it was fine. I didn't do anything after that other than to lift the chassis off its side (it was on its side so that I could access C49) and lay it flat on my workbench. When I turned it on again something was wrong; I can no longer get a plate current dip when adjusting the PLATE control. I can successfully tune (peak) RF TUNE, but there is no longer a current dip when I adjust PLATE. Maximum output power occurs with both PLATE and LOAD set maximum clockwise. I tried DeOxit on the 2 band switch wafers in the PA compartment to no avail. Has anyone seen this before?

Brian NI7P

[Non-text portions of this message have been removed]

20733. Re: [DrakeRadio] T4X-B PA won't tune

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-04 22:57:15 UTC
From: Richard Knoppow
Topic: 20732 Message: 20733

----- Original Message -----
From: "Brian and Beth Miller" <bmiller297@...>
To: <drakeradio@yahoogroups.com>
Sent: Sunday, May 04, 2014 3:37 PM
Subject: [DrakeRadio] T4X-B PA won't tune

> Operating on 20m lately I noticed that the plate current
> dip did not
> correspond to maximum output power; it was just a little
> off so
>
> I decided to tweak the neutralization on my T4x-B. I
> performed the
> adjustment as per the instruction manual. I subsequently
> checked it at 20m
> where it was fine. I didn't do anything after that other
> than to lift the
> chassis off its side (it was on its side so that I could
> access C49) and lay
> it flat on my workbench. When I turned it on again
> something was wrong; I
> can no longer get a plate current dip when adjusting the
> PLATE control. I
> can successfully tune (peak) RF TUNE, but there is no
> longer a current dip
> when I adjust PLATE. Maximum output power occurs with both
> PLATE and LOAD
> set maximum clockwise. I tried DeOxit on the 2 band switch
> wafers in the PA
> compartment to no avail. Has anyone seen this before?
>
>
>
> Brian NI7P
>
I don't have a specific answer but it sounds like
something may have come loose or even fallen into the rig.
Do you by any chance have a grid dip meter, if so you can
use it to check the resonance, or lack of it, in the plate
tank circuit with the power off.
Another thought, check the neutralization cap for a
short.

--
Richard Knoppow

Los Angeles
WB6KBL
dickburk@...

20734. Re: [DrakeRadio] Cable info for 7 line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 00:37:27 UTC
From: Jim Shorney
Topic: 20726 Message: 20734

I don't think it's critical. I used ordinary RG-58A/u for the antenna cables. For the control cable between the radios I used some low-capacitance 90 Ohm Teflon mini-coax that I had on hand for the RF connections, but others have used RG-174. I made it the same length as the Drake control cable. The audio patch cable can be anything, shielded is probably a good idea.

73

-Jim
NU0C

On Sun, 4 May 2014 21:10:19 +0200, Paolo Emanuelli IK1QHB wrote:

>Good evening folks
>
>I wanted to ask a question to the more experienced:
>
>the connection cables between the tr7 and r7 leaving the cable accessories that kind should it be?
>I am referring to the two wires that go from the socket "external antenna" and the "external receiver" from tr7, to the "external receiver" and "main" in the r-7 ...
>Coaxial cables with 52 or other impedence are required, or just use shielded cables?
>Can i use .... random lengths, or lengths calibrated as in the lines c and b?
>The cable accessories ... must be cut to length calculated or random?
>
>Many thanks to all
>
>Paul IK1QHB

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

20735. Re: [DrakeRadio] R4B hum problem and fix

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 03:43:01 UTC
From: Richard Knoppow
Topic: 20715 Message: 20735

----- Original Message -----
From: "Richard Knoppow" <1oldlens1@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 04, 2014 12:11 AM
Subject: [DrakeRadio] R4B hum problem and fix

I tested the hummy 12AX7A in two tube testers, a TV-7D/U
and a Weston 981 Type-3. The tube tests good on both
testers. No indication of a shorts or leakage and Gm is
above the minimum. The Gm is also exactly the same in both
sections. Yet the tube hums. Well, tube testers will spot
really bad tubes but not always marginal ones. This tube
may well work in some other circuit so I marked it and will
put in my stash of spares. I think tube testers are
valuable but the final test is whether the tube works in a
particular circuit regardless of what the tester reports.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20736. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 12:21:27 UTC
From: <clwelsch@...>
Topic: 12987 Message: 20736

Hello Garey,

I have been absent from the Drakes for some days as I had other work to do...

I got all the TR-4C CD information into my folder. Thanks for this transfer.

But my problem on 80m remains. A new capacitor at C145B didn't change anything and adjusting the VOX and ANTI-VOX controls neither. Where is VOX DELAY?

What and where are the keyed Cathodes (XMIT K)?

There seems something dying slowly in there but I don't yet know what? Could it be a tube? Remember it is only happening on 80m (all other bands being correct) and now the plate current is immediately up to 600 mA as soon as I hit CW for tuning. I don't even wait for it to go down anymore so I don't know what's the periodicity now.
Output power is ok when it is properly tuned and low or nothing when it's out of tune but plate current is always 600 mA. It is also 600 mA when the SIDEBAND switch is not at X!

Greetings

Claude

[Non-text portions of this message have been removed]

20737. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 13:41:00 UTC
From: Garey Barrell
Topic: 12987 Message: 20737

Claude -

OK. I may need a refresher on your problem. I've done about a dozen different 'projects' since
then!! :-)

There is no VOX DELAY control. Delay is determined by a 'select at test' resistor (R106), nominally 3.3M.

Did you replace C145, or just add a cap across C145B? If the latter, did you disconnect the terminal from C145B?

Can you set the IDLE current to 100 mA?

I'm suspicious of a bad connection or switch terminal (S1-G) in the Pi Net output area, allowing
the PA to oscillate at 'some' frequency. 600 mA is bad news for PA tubes. If you have a Grid
Dip meter, it might be instructive to check resonance on 80M. It's also possible to inject a
signal into one of the terminals on the side of the LOAD capacitor and scope the rotor terminal
of the PLATE capacitor across a 1500-2000 ohm resistor to ground. Adjust caps for resonance,
max signal at scope.

The XMIT K line connects the Cathodes of V4, V6 and V15 to ground them to enable TRANSMIT when
the relay is closed.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

clwelsch@... wrote:
> Hello Garey,
>
> I have been absent from the Drakes for some days as I had other work to do...
>
>
> I got all the TR-4C CD information into my folder. Thanks for this transfer.
>
>
> But my problem on 80m remains. A new capacitor at C145B didn't change anything and

adjusting the VOX and ANTI-VOX controls neither. Where is VOX DELAY?
>
>
> What and where are the keyed Cathodes (XMIT K)?
>
>
> There seems something dying slowly in there but I don't yet know what? Could it be a tube?
> Remember it is only happening on 80m (all other bands being correct) and now the plate current is immediately up to 600 mA as soon as I hit CW for tuning. I don't even wait for it to go down anymore so I don't know what's the periodicity now.
> Output power is ok when it is properly tuned and low or nothing when it's out of tune but plate current is always 600 mA. It is also 600 mA when the SIDEBAND switch is not at X!
>
>
> Greetings
>
>
> Claude
>
>

20738. Re: T4X-B PA won't tune

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 15:50:42 UTC
From: <rochep@...>
Topic: 20732 Message: 20738

From what I remember Garey told me, when the LOAD control is turned up and up and up and output STILL is increasing (into a dummy load) that is a sign that your finals are oscillating. Are you sure nothing on your final tubes was knocked loose? Are those resistors (parasitic suppressors?) on top still attached well? I think this all has SOMETHING to do with your finals, since that is what you were mucking around with.

paul

[Non-text portions of this message have been removed]

20739. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 17:59:00 UTC
From: Michael Engstrom
Topic: 20499 Message: 20739

Hello Stu and to all in this long thread,

R8 is good. One of the first things I did was check the resistance of R8 when the T/R really close, so I measured it from the center tap of the filament transformer as I closed the relay. Removing the +120 volts from the cathode and putting the grids to ground through R8 keys the L4B normally with appropriate grid current.

I'm stumped right now and am going to give it a little rest.

I so much appreciate everyone's participation and help with this most perplexing problem. Till later... 73,

Mike AA7WM
On May 4, 2014 11:05 AM, "w7fe" <w7fe@...t> wrote:

>
>
> Mike,
>
> So what was the outcome on this problem? Haven't seen any postings since
> the
> one below from Paul. May we presume that replacement of R8 resulted is
> normal operation?
>
> 73 de Stu, W7FE
>
> ----- Original Message -----
> From: "Paul Dulaff" <pdulaff@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Friday, May 02, 2014 11:59 AM
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> > Mike
> >
> > A common fault which could account for both a high apparent grid current
> > reading and low idling current would be increased resistance in the
> > cathode return to ground. A higher resistance here increases the
> negative
> > bias on the grid, thus reducing idling current. Also this resistance
> > incorporates the shunt for the grid current meter. If the resistance
> goes
> > up, so does the grid meter reading.
> >
> > Check R8 and confirm it measures 1 ohm.
> >

> > Check voltage from cathode to ground when idling and see if there is
> only
> > 1 ohm resistance to ground.
> >
> > Paul - WB2NMI
> >
> >
> > ----- Original Message -----
> > From: Michael Engstrom <michael.engstrom.73@...>
> > To: DrakeRadio@yahoogroups.com
> > Sent: Fri, 02 May 2014 14:08:39 -0400 (EDT)
> > Subject: Re: [DrakeRadio] L4B - low output with new tubes.
> >
> >
> >
> >
> >
> > Tnx Jim.
> >
> >
> > I'll follow the high-voltage line from the input to the anode & make sure
> >
> > all those connections are good.
> >
> > On May 2, 2014 11:04 AM, "Michael Engstrom"
> > <michael.engstrom.73@...>
> >
> > wrote:
> >
> >
> >> Jim -
> >
> >>
> >
> >> This is really a good idea. At first opportunity I will check this. I
> >
> >> think the idling current is lower than 200 mills... (L4B keyed with no
> >
> >> input.) I want to say it's more like 100ma but I will check this.
> >
> >> On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:
> >
> >>
> >
> >>>
> >
> >>>
> >
> >>> One final check -
> >

> >>>
> >
> >>> When the amplifier is "buttoned up", it should draw between 200 and 250
> >
> >>> milliamperes PLATE current when turned on and keyed (when the connector
> >
> >>> marked "vox relay" hot lead is shorted to ground). Make this test
> >
> >>> with NO RF driving power applied. If it does not do this, there is
> >
> >>> definitely something amiss in the b+ circuitry
> >
> >>>
> >
> >>> Another thought - it is possible that there is a wire (on the RF
> choke?)
> >
> >>> that is partially burned through, making enouigh connection for the b+
> >
> >>> meter to read, but failing open when you try to draw some real current.
> >
> >>>
> >
> >>> - Jim, KL7CC
> >
> >>>
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> >>>
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20740. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-05 22:10:49 UTC
From: <clwelsch@...>
Topic: 12987 Message: 20740

Hello Garey,

The problem was that the transmitter of my TR-4C works fine on all bands except 80m. On the 80m when I tuned with CW, plate current oscillated between 100 mA and 600 mA with no drive, with a period of roughly 1 sec. Meanwhile as soon as I turn to CW, plate current goes to 600 mA. As I switch back immediately, I won't know what the period now is. When I tested with a new C145B capacitor, I had the one in the can disconnected.
It also happens when the sideband switch is not on X, where normally on the other bands I cannot tune. It happened with all positions of LOAD, TUNE and other controls, but the real output power of approx. 100 W is only there when TUNE and LOAD are right.

And this problem started only after I did the 5-14 adjustments in the manual. I don't know if there is a relation, but before 80m transmission was fine.

73

Claude

[Non-text portions of this message have been removed]

20741. Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 00:12:04 UTC
From: <k3afr@...>
Topic: 20741 Message: 20741

I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.

73,
Butch...K3AFR

[Non-text portions of this message have been removed]

20742. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 00:17:27 UTC
From: Steve Wedge
Topic: 20741 Message: 20742

Anytime you can find a 6HS6 for less than $15, grab it! They're becoming made of unobtanium.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 5, 2014, at 8:12 PM, <k3afr@zoominternet.net> wrote:
>
>
> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.
>
> 73,
> Butch...K3AFR
>
>
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20743. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 00:25:03 UTC
From: Chgypsy@...
Topic: 20741 Message: 20743

k3afr@... writes:

I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Butch...K3AFR
By ...good....? Available yes. _www.thetubecenter.com_ (http://www.thetubecenter.com)

I have used several times but have no financial interest.
Carl WD8NHK

[Non-text portions of this message have been removed]

20744. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 00:45:09 UTC
From: Dan Galligan
Topic: 20741 Message: 20744

Frank Krize, K5SVC (k5svc@...) has the best tubes, at the best prices, I've found, and he's a great guy to deal with. Almost all are mil-spec NOS. And, as many as I have purchased from him, I've never gotten a bad, or weak tube. I've probably bought 100-150 tubes from him, and still have 40, or 50 in my current supply.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

> On May 5, 2014, at 19:12, k3afr@... wrote:
>
>
> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.
>
> 73,
> Butch...K3AFR
>
>
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20745. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 00:50:07 UTC
From: Don Cunningham
Topic: 20741 Message: 20745

Dan,
Last time I emailed Frank Krize about Drake tubes, he was only selling complete sets, no singles of the hard to get ones like the 6HS6's. Of course it never hurts to ask, but that was the response I got. His tubes ARE great, however.
73,
Don, WB5HAK
On 5/5/2014 7:45 PM, Dan Galligan wrote:
>
> Frank Krize, K5SVC (k5svc@...) has the best tubes, at the best
> prices, I've found, and he's a great guy to deal with. Almost all are
> mil-spec NOS. And, as many as I have purchased from him, I've never
> gotten a bad, or weak tube. I've probably bought 100-150 tubes from
> him, and still have 40, or 50 in my current supply.
>
> 73,
> Dan
> W3RXO/W5
> Evening Shade, OK
> EM25no
>
> When the Okies left Oklahoma and moved to California, it raised the
> I.Q. of both states.
> Democrats never agree on anything, that's why they're Democrats. If
> they agreed with each other, they would be Republicans.
> Will Rogers
>
> Read more at
> http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
> Sent from my iPad.
>
> > On May 5, 2014, at 19:12, k3afr@... wrote:
> >
> >
> > I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I
> have some of them already but still need a few. Looking for 3 ea
> 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good
> source for these? Thanks in advance.
> >
> > 73,
> > Butch...K3AFR
> >
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This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

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20746. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 01:18:42 UTC
From: Dan Galligan
Topic: 20741 Message: 20746

Don,
I didn't know that. The last tubes I bought, were sets, for many of my boat anchors. I just had to pull one from a set, for my HQ-150.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states. Democrats never agree on anything, that's why they're Democrats. If they agreed with each other, they would be Republicans.
Will Rogers

Read more at
http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
Sent from my iPad.

> On May 5, 2014, at 19:50, Don Cunningham <donc@...> wrote:
>
> Dan,
> Last time I emailed Frank Krize about Drake tubes, he was only selling
> complete sets, no singles of the hard to get ones like the 6HS6's. Of
> course it never hurts to ask, but that was the response I got. His
> tubes ARE great, however.
> 73,
> Don, WB5HAK
>> On 5/5/2014 7:45 PM, Dan Galligan wrote:
>>
>> Frank Krize, K5SVC (k5svc@...) has the best tubes, at the best
>> prices, I've found, and he's a great guy to deal with. Almost all are
>> mil-spec NOS. And, as many as I have purchased from him, I've never
>> gotten a bad, or weak tube. I've probably bought 100-150 tubes from
>> him, and still have 40, or 50 in my current supply.
>>
>> 73,
>> Dan
>> W3RXO/W5
>> Evening Shade, OK
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>>
>> When the Okies left Oklahoma and moved to California, it raised the
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>> Democrats never agree on anything, that's why they're Democrats. If
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>> Will Rogers
>>
>> Read more at
>> http://www.brainyquote.com/quotes/authors/w/will_rogers.html#72Ro6M7s4FQOCdpH.99
>> Sent from my iPad.
>>
>>> On May 5, 2014, at 19:12, k3afr@... wrote:
>>>
>>>
>>> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I
>> have some of them already but still need a few. Looking for 3 ea
>> 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good
>> source for these? Thanks in advance.
>>>
>>> 73,
>>> Butch...K3AFR
>>>
>>>
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> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
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20747. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 02:07:45 UTC
From: Garey Barrell
Topic: 20741 Message: 20747

Butch -

Try ESRC at <http://www.esrcvacuumtubes.com/>. Good tubes, good prices.

Be sure and get several 12BA6s. They are the most problematic, grid emission.

Sometimes the 6EH5 is trouble. The rest not so much.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k3afr@... wrote:
> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.
>
> 73,
> Butch...K3AFR
>
>
>

20748. What's rarer than W1AW/0 Nebraska?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 03:47:25 UTC
From: Jim Shorney
Topic: 20748 Message: 20748

What's rarer than W1AW/0 Nebraska?

How about W1AW/0 NE running on vintage Drake gear!

I'm scheduled for 17 Meter digital modes this week from my home shack. I'll be running the 7-Line with my NCL-2000. Probably mostly RTTY, but I'm going to try to work in some PSK.

I'm running the NCL-2000 instead of the L-7 because it presents a nice 50-Ohm resistive load to the TR-7 on 17 Meters. The L-7 will be standing by should the aging caps in the NCL blow chunks.

My shift will be 2100-2300 UTC, on or near 18103. That's 4-6 PM CDT, weekdays starting Wed. through next Tues. Satuday I'm scheduled for 1800-2100 UTC, and Sunday 1300-1500 UTC. If you hear a signal outside of those times, it's not me.

Full schedule is here:

http://k0ha.com/w1aw/w1aw.htm

Each date has it's own chart, clickable at the top. Where you see a letter in a square, that is a code for the op. I'm "C", go figure...

I'll also be working evening shifts from K0GND on 20 fone, but that's only a Yaesu....

Hope to hear you on the air!

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

20749. New toy! doubly- Need TR-4 AF gain pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 05:41:14 UTC
From: vacuuminded2@...
Topic: 20749 Message: 20749

Hi all,

Well, a TR-4C/AC-4/MN-4 followed me home from the Sandwich hamfest this weekend. Seller said the meter pegs when turned on, and otherwise seemed deaf and mute. Really wished it had the noise blanker, (I NEED one for use in my vintage mobile setup, you know, breaker point ignition and all..), but waddya gonna do.. The price was right at a C note for everything.

Spent a few minutes checking it out tonight. #1, I turned the RF gain control fully CW, thus fixing the pegged meter "problem."

RX was dead, but could hear the calibrator with the volume at max. Pulled the bottom cover, taa-daa the #12 fuse lamp was black and open. Stuck a new one in place, and immediately heard some 20m digi. The AF gain pot is screwed though, it's open unless turned nearly full CW.

TX doesn't engage so it still has other issues, but it WANTS to work- so it's worth saving.

So- Who has a spare AF gain pot (or the entire AF/RF/AC power switch assembly) they're willing to part with?

If you don't want cash, I will trade for rubber bumpers, #12 lamps, burnisher tools, or anything else in my ePay store if you would prefer. I should also have the *correct* size stud bumpers used on the AC-4 in another month or two. I elected to have them custom made in a long lasting, non-marking EPDM.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

20750. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 08:17:48 UTC
From: <clwelsch@...>
Topic: 12987 Message: 20750

Hello Garey,

I checked the XMIT K signal. In receive mode, I have 154 V on this line, in transmit mode (relay closed), I have 4 mV and 12,4 Ohm on this line, Is that normal? Shouldn't it be directly to ground? I've checked the contacts on the relay and they are OK.

73

Claude

[Non-text portions of this message have been removed]

20751. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 11:42:23 UTC
From: Steve Wedge
Topic: 20741 Message: 20751

I have had a couple bad 6HS6's but not in a while. I had a problem with wicked noise once that was a 12BE6 that looked "fine" on a TV-10 tube tester.

Yes, tube testers are screening devices and don't catch everything. Having said that, I am considering doing a refurb to mine: it still has the 866 rectifier, which I worry about. The thing is useful for screening tubes. I need to replace two of the sockets as well, so this is gonna be a real "project".

There were a few mods on a site (http://www.antiqueairwaves.com/nlee/tv-3&10.html) that re-capped the tester and solid-stated the rectifier. Nolan Lee compiled extensive data on the military tube testers and his pages have been preserved in a few places (he's now an SK). He also compiled extensive "roll chart" spreadsheets) .

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Garey Barrell
Sent: Monday, May 05, 2014 10:07 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Tubes....

Butch -

Try ESRC at <http://www.esrcvacuumtubes.com/>. Good tubes, good prices.

Be sure and get several 12BA6s. They are the most problematic, grid emission.

Sometimes the 6EH5 is trouble. The rest not so much.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k3afr@... wrote:
> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.
>
> 73,
> Butch...K3AFR

>
>
>

[Non-text portions of this message have been removed]

20752. Re: New toy! doubly- Need TR-4 AF gain pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 11:45:37 UTC
From: Mark Gilger
Topic: 20749 Message: 20752

I agree with Glen. EXRC at <http://www.esrcvacuumtubes.com/> is a good guy to deal with. He also sets up at Dayton Hamvention if you rather do your business in person.

Mark, WB0IQK

20753. Re: New toy! doubly- Need TR-4 AF gain pot

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 13:25:22 UTC
From: <tjb813@...>
Topic: 20749 Message: 20753

I have a scrap TR4. I'l look to see tonight if it still has the audio pot (and switch).

KD8CN
Tim

[Non-text portions of this message have been removed]

20754. Re: [DrakeRadio] Need 15m Crystal for TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 14:21:02 UTC
From: Garey Barrell
Topic: 12987 Message: 20754

Claude -

I don't know that 4 mV is a problem, but yes, it should be a hard ground. If you're in transmit, perhaps you're getting some RF into the meter??

Have you made the 'screwdriver tour' through this radio yet?? The first thing I do with a 'new'
radio is first to verify that the 'correct' fuse is in place in the AC-4, and second is to go
through the entire chassis and put a screwdriver on EVERY screw. Tube socket mounting, terminal
strip, PC boards, shields are all used for ground connections. If loose, tighten. If tight, loosen a quarter turn and re-tighten. Carefully examine solder joints and components as you go.
This procedure will 'solve' a LOT of problems, and save a LOT of troubleshooting.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

clwelsch@... wrote:
> Hello Garey,
>
> I checked the XMIT K signal. In receive mode, I have 154 V on this line, in transmit mode (relay closed), I have 4 mV and 12,4 Ohm on this line, Is that normal? Shouldn't it be directly to ground? I've checked the contacts on the relay and they are OK.
>
>
> 73
>
>
> Claude
>
>
>
>
> [Non-text portions of this message have been removed]
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>
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> ------------------------------------
>
> Yahoo Groups Links

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20755. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 14:30:15 UTC
From: Garey Barrell
Topic: 20741 Message: 20755

Steve -

Bad 6HS6's are pretty rare. That is one tough tube!! :-)

Other tubes DO fail, but far and away the 12BA6 and 6EH5 are the most frequent failures, at least in my experience.

That must be SOME tube tester if it has an 866 rectifier!!! :-)

I've always been suspicious of the 83 rectifier used in the TV-7. Mercury vapor rectifiers are
specified for vertical operation ONLY, the the 83 is horizontal unless you put the TV-7 on it's
side. MV's also like to have a period of warm-up before HV is applied to allow the condensed
mercury to vaporize. I guess it's like the bumble-bee!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Steve Wedge wrote:
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>> 73,
>> Butch...K3AFR
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>>

20756. Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:12:20 UTC
From: <prosolar@...>
Topic: 20756 Message: 20756

Boys and girls,

after returning my R4A back to service, I've opened a spot on the service bench for my ailing TR-4.

There're two issues.

The audio output is low, need the volume control into the stops to hear stations. I thought I had a bad audio transformer, may still be bad, but suspect an other problem.

There is no TX. The T/R relay won't pull in in any position of the mode control.

I suspect the two problems overlap.

The voltages on the 6AQ5 are good

However the voltages on the 6EV7 are no so good.

On pin 6 of the 6EV7, instead of 110 I have 25. Not good. The 100k resistor feeding that pin had changed value to 133K. Replaced with no joy. I suspect the 10 uf cap to be fubar, but haven't found it yet.

There is a .01 cap that couples the audio from the 6AQ5 back to the second half of the 6EV7, as anti-vox. I'm going to lift one lead of that cap and see if my audio comes up to full bore.

Yes, I've tried a new/different 6EV7 and got the same results.

While this isn't a do or die project, it bugs me not having one of my Drake radios not working.

Any ideas before I dig deeper?

Mike, WB8VGE
The HeathkitShop.com

[Non-text portions of this message have been removed]

20757. Re: [DrakeRadio] Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:29:30 UTC
From: Garey Barrell
Topic: 20756 Message: 20757

s/n??

Value and condition of R103, R115? C145C is part of the four section Twist-Lok cap.

Simple Class A audio voltage amplifier. No real relation to V17. Plate voltage of V19 with VOX
at minimum??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... wrote:
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> Mike, WB8VGE
> The HeathkitShop.com
>

20758. Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:41:03 UTC
From: <dj_coffman@...>
Topic: 20758 Message: 20758

Ok all, here is my stupid question for the day; I'm sure this has been discussed numerous time however, I have not found the answer surfing the group.

I have found a fuse rating for the R4B and R4C receivers in the schematic. For some reason, unless I have just overlooked it in the manual, the only place I find the information is in the schematic. The schematics show a requirement of 3/4 amp slow blow. Is this the correct fuse for all versions of the R4B and R4C receivers?

I have an R4 without a manual, what is the fuse requirement for this receiver?

Over the past 6 months, I have acquired 6 Drake receivers (Note Severe addiction or sickness) and am now working slowly to go through them and get them on the air. All of them have come to me with incorrect fuses ranging from 1.5 amp all the way to 5 amp. Luckily nothing has been burned up, but goodness they might as well wrap a double mint gum wrapper around the fuse and stick it in.

Thanks for humoring my stupid questions,

Doug - N9XTF

[Non-text portions of this message have been removed]

20759. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:50:30 UTC
From: Garey Barrell
Topic: 20758 Message: 20759

Doug -

All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is 0.6A, Slo-Blo....

The AC-3 and AC-4 were originally a 5A Slo-Blo. Drake later said a 6-1/4A Slo-Blo is ok if the
5A blows too often!

My favorite 'fuse' was a piece of #2 solid copper wire, carefully straightened and filed smooth
on either end. Fit perfectly!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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>
>
> Doug - N9XTF
>
>

20760. RE: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:55:17 UTC
From: Doug Coffman
Topic: 20758 Message: 20760

Garey,

As usual, thanks for the information. Is this information published in the manuals or just in the schematic?

I used to work for a mom and pop outfit in the concrete block industry; if there was an electrical problem in a piece of equipment, the owner would insert a fuse similar to your description or anything to bypass the fuse and then look for smoke. He also used to use 110V light bulbs to stick in 480 volt panels to test for voltage. I watched him blow a number of them up; it makes a brilliant light and noise that's quite funny if you are not the idiot holding it!

Thanks,

Doug

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On Behalf Of Garey Barrell
Sent: Tuesday, May 6, 2014 11:51 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating

Doug -

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>
> Doug - N9XTF
>
>

[Non-text portions of this message have been removed]

20761. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 15:59:01 UTC
From: barcand@...
Topic: 20758 Message: 20761

Garey,
Seriously, when I was service manager at a GE Two-Way Shop, we had a tech that could fix anything in the shortest period of time, especially when anything came in blowing fuses. He had one of your "specialty fuses", would slam it in, turn on the radio and with his hand on the "off" knob, would look for smoke, heat, smell. Usually he found it quickly...and then went to work troubleshooting. I never had the guts to do that!!
Bernie in ND
WD0GMD

On Tue, May 6, 2014 10:50 am, Garey Barrell wrote:
> Doug -
>
> All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is 0.6A,
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
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>>
>>
>> Doug - N9XTF
>>
>>
>
>

20762. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 16:05:08 UTC
From: Garey Barrell
Topic: 20758 Message: 20762

The manuals specify Power Requirement at 60W for all models. This is 0.5A at 120 VAC, but we
gotta allow for that 'bright' flash at the turn-on with the 'light-bulb' test fixture.... It
takes longer for the initial cap charge and cold filament surge to finish to cover with just the
'Slo-Blo' time delay.

So you gonna need a R-4A 'combo' CD??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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>
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>
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> Behalf Of Garey Barrell
> Sent: Tuesday, May 6, 2014 11:51 AM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating
>
>
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>
> [Non-text portions of this message have been removed]
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>
> Yahoo Groups Links
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20763. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 16:09:23 UTC
From: Garey Barrell
Topic: 20758 Message: 20763

That's the test procedure for 'someone else's' radio! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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barcand@... wrote:
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>>>
>>> Doug - N9XTF
>>>
>>>
>>

20764. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 16:11:13 UTC
From: Ken Winterling
Topic: 20758 Message: 20764

Can you say "battle short"?

Ken
WA2LBI

On Tue, May 6, 2014 at 12:09 PM, Garey Barrell <k4oah@...> wrote:

> That's the test procedure for 'someone else's' radio! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> > would slam it in, turn on the radio and with his hand on the "off" knob,
> > would look for smoke, heat, smell. Usually he found it quickly...and then
> > went to work troubleshooting. I never had the guts to do that!!
> > Bernie in ND
> > WD0GMD
> >
> >
> >
> > On Tue, May 6, 2014 10:50 am, Garey Barrell wrote:
> >> Doug -
> >>
> >> All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is 0.6A,
> >> Slo-Blo....
> >>
> >> The AC-3 and AC-4 were originally a 5A Slo-Blo. Drake later said a
> 6-1/4A
> >> Slo-Blo is ok if the
> >> 5A blows too often!
> >>
> >> My favorite 'fuse' was a piece of #2 solid copper wire, carefully
> >> straightened and filed smooth
> >> on either end. Fit perfectly!
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA

> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> dj_coffman@... wrote:
> >>> Ok all, here is my stupid question for the day; I'm sure this has
> been
> >>> discussed numerous time however, I have not found the answer surfing
> >>> the group.
> >>>
> >>>
> >>> I have found a fuse rating for the R4B and R4C receivers in the
> >>> schematic. For some reason, unless I have just overlooked it in the
> >>> manual, the only place I find the information is in the schematic.
> >>> The schematics show a requirement of 3/4 amp slow blow. Is this the
> >>> correct fuse for all versions of the R4B and R4C receivers?
> >>>
> >>>
> >>> I have an R4 without a manual, what is the fuse requirement for this
> >>> receiver?
> >>>
> >>>
> >>> Over the past 6 months, I have acquired 6 Drake receivers (Note
> Severe
> >>> addiction or sickness) and am now working slowly to go through them
> >>> and get them on the air. All of them have come to me with incorrect
> >>> fuses ranging from 1.5 amp all the way to 5 amp. Luckily nothing has
> >>> been burned up, but goodness they might as well wrap a double mint gum
> >>> wrapper around the fuse and stick it in.
> >>>
> >>>
> >>> Thanks for humoring my stupid questions,
> >>>
> >>>
> >>> Doug - N9XTF
> >>>
> >>>
> >>
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20765. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 16:36:45 UTC
From: Barry
Topic: 20758 Message: 20765

"Your filter capacitor was shorted and I replaced that. Oh, and your transformer was burned out as well..."

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: barcand@...
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 6, 2014 10:59:01 AM
> Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating
>
> Garey,
> Seriously, when I was service manager at a GE Two-Way Shop, we had a
> tech
> that could fix anything in the shortest period of time, especially
> when
> anything came in blowing fuses. He had one of your "specialty
> fuses",
> would slam it in, turn on the radio and with his hand on the "off"
> knob,
> would look for smoke, heat, smell. Usually he found it quickly...and
> then
> went to work troubleshooting. I never had the guts to do that!!
> Bernie in ND
> WD0GMD
>
>
>
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> > Doug -
> >
> > All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is
> > 0.6A,
> > Slo-Blo....
> >
> > The AC-3 and AC-4 were originally a 5A Slo-Blo. Drake later said a
> > 6-1/4A
> > Slo-Blo is ok if the
> > 5A blows too often!
> >
> > My favorite 'fuse' was a piece of #2 solid copper wire, carefully
> > straightened and filed smooth
> > on either end. Fit perfectly!
> >

> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > dj_coffman@... wrote:
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> >> surfing
> >> the group.
> >>
> >>
> >> I have found a fuse rating for the R4B and R4C receivers in the
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> >> manual, the only place I find the information is in the schematic.
> >> The schematics show a requirement of 3/4 amp slow blow. Is this
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> >> correct fuse for all versions of the R4B and R4C receivers?
> >>
> >>
> >> I have an R4 without a manual, what is the fuse requirement for
> >> this
> >> receiver?
> >>
> >>
> >> Over the past 6 months, I have acquired 6 Drake receivers (Note
> >> Severe
> >> addiction or sickness) and am now working slowly to go through
> >> them
> >> and get them on the air. All of them have come to me with
> >> incorrect
> >> fuses ranging from 1.5 amp all the way to 5 amp. Luckily nothing
> >> has
> >> been burned up, but goodness they might as well wrap a double mint
> >> gum
> >> wrapper around the fuse and stick it in.
> >>
> >>
> >> Thanks for humoring my stupid questions,
> >>
> >>
> >> Doug - N9XTF
> >>
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> >

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> Yahoo Groups Links
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20766. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 16:56:16 UTC
From: Michael Engstrom
Topic: 20499 Message: 20766

Hello all...

Tnx to everyone... Garey, Paul, Jim, Stu, Joe and many others for there help. I am summarized the problem and the actions taken, and for now I'm going to give it a rest.

It's a Drake L4B amplifier with excellent tubes and a good power supply that only puts out about 350 watts on all bands.

Band: Any
Idle plate current, keyed, no drive: 120ma.
Drive: 10 watts from ft1000
Grid current: 220ma
Plate voltage: 2500 under load.
Plate current 250ma. W/ a sharp dip.
Power out: abt 350W. Measured with L4B meter and external watt meter.
SWR <1.5:1. Antenna or dummy load.

Increasing the LOAD only produces less RF output and re-dipping the plate becomes very broad (not sharp).

On 80, 40 and 20 the greatest power output happens when the LOAD control is fully counter-clockwise or maximum capacity. On 15 and 10, I can advance the LOAD a little bit Clock Wise to get peek power, but I don't advance it much.

Plate current dips where it's supposed to as indicated by the RedPointer on the front panel TUNE control.

Input SWR is good. <1.5:1.

&&&& Observations/Actions &&&&

It seems like a lot of grid current for a small amount of drive.

Cleaned all contacts, wafer switches and relay.

Made sure that the input wafer switches and the output tank circuit band switch are synchronized. (There's a plastic chain that keeps them synchronize when turning the BAND switch.)

All the RF Chokes test good... They look good too, no dark or brown spots.

There's Low resistance from anodes to the high-voltage connector. Main RF choke had good continuity, low resistance, just a few ohms.

It seems like the answer rests in the fact that there is so much grid current with so little drive?

When the L4B is keyed, +120 volts is removed from the cathode and the center tap of the filament transformer is grounded through a 1 ohm 10W resistor. Checks okay. Normal idle plate current of 120ma flows and grids pull current with drive.

Its acting like an amplifier the doesn't have any plate voltage or low plate voltage or some resistance in the anode circuit or a high voltage power supply problem. But the high-voltage remains consistent, only changing a couple hundred volts underload which is normal.

Stumped for now.

73,
Mike AA7WM
On May 2, 2014 11:59 AM, "Paul Dulaff" <pdulaff@...> wrote:

>
>
> Mike
>
> A common fault which could account for both a high apparent grid current
> reading and low idling current would be increased resistance in the cathode
> return to ground. A higher resistance here increases the negative bias on
> the grid, thus reducing idling current. Also this resistance incorporates
> the shunt for the grid current meter. If the resistance goes up, so does
> the grid meter reading.
>
> Check R8 and confirm it measures 1 ohm.
>
> Check voltage from cathode to ground when idling and see if there is only
> 1 ohm resistance to ground.
>
> Paul - WB2NMI
>
> ----- Original Message -----
> From: Michael Engstrom <michael.engstrom.73@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Fri, 02 May 2014 14:08:39 -0400 (EDT)
> Subject: Re: [DrakeRadio] L4B - low output with new tubes.
>
> Tnx Jim.
>
> I'll follow the high-voltage line from the input to the anode & make sure
>
> all those connections are good.
>
> On May 2, 2014 11:04 AM, "Michael Engstrom" <michael.engstrom.73@...
> >
>
> wrote:
>
> > Jim -

>
> >
>
> > This is really a good idea. At first opportunity I will check this. I
>
> > think the idling current is lower than 200 mills... (L4B keyed with no
>
> > input.) I want to say it's more like 100ma but I will check this.
>
> > On May 1, 2014 7:09 PM, "Jim Wiley" <jwiley@...> wrote:
>
> >
>
> >>
>
> >>
>
> >> One final check -
>
> >>
>
> >> When the amplifier is "buttoned up", it should draw between 200 and 250
>
> >> milliamperes PLATE current when turned on and keyed (when the connector
>
> >> marked "vox relay" hot lead is shorted to ground). Make this test
>
> >> with NO RF driving power applied. If it does not do this, there is
>
> >> definitely something amiss in the b+ circuitry
>
> >>
>
> >> Another thought - it is possible that there is a wire (on the RF choke?)
>
> >> that is partially burned through, making enouigh connection for the b+
>
> >> meter to read, but failing open when you try to draw some real current.
>
> >>
>
> >> - Jim, KL7CC
>
> >>
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> >

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> [Non-text portions of this message have been removed]
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20767. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:01:10 UTC
From: <w1es1982@...>
Topic: 20741 Message: 20767

Maybe it's not an 866. I do know it has a MV rectifier using a 4-pin layout, so assumed an 866.

Yes, and I am concerned about it for that very reason. It's long past time that I rehabbed this old boy: I've owned it for over 28 years - bought it for $25 at the Framingham (MA) hamfest back in the 80's. Still has the price tag on it and I rememeber using it when my shack was in what became my younger (28-yo) son's bedroom. That's where my first C-Line lived, too.

Yeah, it was funny - I had one weak 6HS6 and one with shorts. Replaced them and the receivers worked better afterwards. The weak one is still in a box in case I someday have no alternative. Yes, I also have some 6AH6's and have tried them in place of the 6HS6's just to see if they work. They do, but I'm sure there are some other issues like dynamic range and IMD that could be affected by changing over to them.

I plan on taking some photos when I start digging into the tester. It should be interesting and educational.

Later -

Steve, W1ES/4

---- Garey Barrell <k4oah@...> wrote:
> Steve -
>
> Bad 6HS6's are pretty rare. That is one tough tube!! :-)
>
> Other tubes DO fail, but far and away the 12BA6 and 6EH5 are the most frequent failures, at
> least in my experience.
>
> That must be SOME tube tester if it has an 866 rectifier!!! :-)
>
> I've always been suspicious of the 83 rectifier used in the TV-7. Mercury vapor rectifiers are
> specified for vertical operation ONLY, the the 83 is horizontal unless you put the TV-7 on it's
> side. MV's also like to have a period of warm-up before HV is applied to allow the condensed
> mercury to vaporize. I guess it's like the bumble-bee!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs

> <www.k4oah.com>
>
> Steve Wedge wrote:
> > I have had a couple bad 6HS6's but not in a while. I had a problem with wicked noise once that was a 12BE6 that looked "fine" on a TV-10 tube tester.
> >
> > Yes, tube testers are screening devices and don't catch everything. Having said that, I am considering doing a refurb to mine: it still has the 866 rectifier, which I worry about. The thing is useful for screening tubes. I need to replace two of the sockets as well, so this is gonna be a real "project".
> >
> > There were a few mods on a site (http://www.antiqueairwaves.com/nlee/tv-3&10.html) that re-capped the tester and solid-stated the rectifier. Nolan Lee compiled extensive data on the military tube testers and his pages have been preserved in a few places (he's now an SK). He also compiled extensive "roll chart" spreadsheets) .
> >
> > 73,
> >
> >
> > Steve Wedge, W1ES/4
> >
> > Time flies like an arrow; fruit flies like a banana.
> >
> >
> > All my computers have my signature with various pearls of wisdom appended thereto.
> >
> >
> >
> > From: Garey Barrell
> > Sent: Monday, May 05, 2014 10:07 PM
> > To: DrakeRadio@yahoogroups.com
> > Subject: Re: [DrakeRadio] Tubes....
> >
> >
> >
> > Butch -
> >
> > Try ESRC at <http://www.esrcvacuumtubes.com/>. Good tubes, good prices.
> >
> > Be sure and get several 12BA6s. They are the most problematic, grid emission.
> >
> > Sometimes the 6EH5 is trouble. The rest not so much.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >

> > k3afr@... wrote:
> >> I'm trying to collect a set of spare tubes for my T-4XB, and R-4B. I have some of them already but still need a few. Looking for 3 ea 12AX7(A), 3 ea 6HS6, 1 ea 6EV7, and 1 ea 6EH5. Anybody know of a good source for these? Thanks in advance.
> >>
> >> 73,
> >> Butch...K3AFR
> >>
> >>
>

20768. Re: [DrakeRadio] Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:03:11 UTC
From: <w1es1982@...>
Topic: 20756 Message: 20768

Mike, I know you're way too experienced to have overlooked the TXCVR/RCVR switch...

:)

'ES

---- prosolar@... wrote:
> Boys and girls,
>
>
> after returning my R4A back to service, I've opened a spot on the service bench for my ailing TR-4.
>
>
> There're two issues.
>
>
> The audio output is low, need the volume control into the stops to hear stations. I thought I had a bad audio transformer, may still be bad, but suspect an other problem.
>
>
> There is no TX. The T/R relay won't pull in in any position of the mode control.
>
>
> I suspect the two problems overlap.
>
>
> The voltages on the 6AQ5 are good
>
>
> However the voltages on the 6EV7 are no so good.
>
>
> On pin 6 of the 6EV7, instead of 110 I have 25. Not good. The 100k resistor feeding that pin had changed value to 133K. Replaced with no joy. I suspect the 10 uf cap to be fubar, but haven't found it yet.
>
>
> There is a .01 cap that couples the audio from the 6AQ5 back to the second half of the 6EV7, as anti-vox. I'm going to lift one lead of that cap and see if my audio comes up to full bore.
>
>
> Yes, I've tried a new/different 6EV7 and got the same results.
>
>

> While this isn't a do or die project, it bugs me not having one of my Drake radios not working.
>
>
> Any ideas before I dig deeper?
>
>
> Mike, WB8VGE
> The HeathkitShop.com
>
>
>
>
>
>
>
>
> [Non-text portions of this message have been removed]
>

20769. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:15:50 UTC
From: Doug Coffman
Topic: 20758 Message: 20769

Yep got all the rest of them.

Oh I don't think I have one for the tr-6 yet. Probably gonna sell that one though.

Sent from my iPhone

> On May 6, 2014, at 12:05, Garey Barrell <k4oah@...> wrote:
>
> The manuals specify Power Requirement at 60W for all models. This is 0.5A at 120 VAC, but we
> gotta allow for that 'bright' flash at the turn-on with the 'light-bulb' test fixture.... It
> takes longer for the initial cap charge and cold filament surge to finish to cover with just the
> 'Slo-Blo' time delay.
>
> So you gonna need a R-4A 'combo' CD??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Doug Coffman wrote:
> > Garey,
> >
> >
> >
> > As usual, thanks for the information. Is this information published in the
> > manuals or just in the schematic?
> >
> >
> >
> > I used to work for a mom and pop outfit in the concrete block industry; if
> > there was an electrical problem in a piece of equipment, the owner would
> > insert a fuse similar to your description or anything to bypass the fuse and
> > then look for smoke. He also used to use 110V light bulbs to stick in 480
> > volt panels to test for voltage. I watched him blow a number of them up; it
> > makes a brilliant light and noise that's quite funny if you are not the
> > idiot holding it!
> >
> >
> >
> > Thanks,

> >
> >
> >
> > Doug
> >
> >
> >
> > From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com] On
> > Behalf Of Garey Barrell
> > Sent: Tuesday, May 6, 2014 11:51 AM
> > To: DrakeRadio@yahoogroups.com
> > Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating
> >
> >
> >
> >
> >
> > Doug -
> >
> > All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is 0.6A,
> > Slo-Blo....
> >
> > The AC-3 and AC-4 were originally a 5A Slo-Blo. Drake later said a 6-1/4A
> > Slo-Blo is ok if the
> > 5A blows too often!
> >
> > My favorite 'fuse' was a piece of #2 solid copper wire, carefully
> > straightened and filed smooth
> > on either end. Fit perfectly!
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com <http://www.k4oah.com> >
> >
> > dj_coffman@... <mailto:dj_coffman@...> wrote:
> >> Ok all, here is my stupid question for the day; I'm sure this has been
> > discussed numerous time however, I have not found the answer surfing the
> > group.
> >>
> >> I have found a fuse rating for the R4B and R4C receivers in the schematic.
> > For some reason, unless I have just overlooked it in the manual, the only
> > place I find the information is in the schematic. The schematics show a
> > requirement of 3/4 amp slow blow. Is this the correct fuse for all versions
> > of the R4B and R4C receivers?
> >>
> >> I have an R4 without a manual, what is the fuse requirement for this
> > receiver?

> >>
> >> Over the past 6 months, I have acquired 6 Drake receivers (Note Severe
> > addiction or sickness) and am now working slowly to go through them and get
> > them on the air. All of them have come to me with incorrect fuses ranging
> > from 1.5 amp all the way to 5 amp. Luckily nothing has been burned up, but
> > goodness they might as well wrap a double mint gum wrapper around the fuse
> > and stick it in.
> >>
> >> Thanks for humoring my stupid questions,
> >>
> >>
> >> Doug - N9XTF
> >>
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> > [Non-text portions of this message have been removed]
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> > Yahoo Groups Links
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[Non-text portions of this message have been removed]

20770. Re: [DrakeRadio] Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:25:56 UTC
From: Mike
Topic: 20756 Message: 20770

First place I looked

Mike wb8vge

Sent from my iPhone

> On May 6, 2014, at 1:03 PM, <w1es1982@...> wrote:
>
> Mike, I know you're way too experienced to have overlooked the TXCVR/RCVR switch...
>
> :)
>
> 'ES
>
> ---- prosolar@... wrote:
>> Boys and girls,
>>
>>
>> after returning my R4A back to service, I've opened a spot on the service bench for my ailing TR-4.
>>
>>
>> There're two issues.
>>
>>
>> The audio output is low, need the volume control into the stops to hear stations. I thought I had a bad audio transformer, may still be bad, but suspect an other problem.
>>
>>
>> There is no TX. The T/R relay won't pull in in any position of the mode control.
>>
>>
>> I suspect the two problems overlap.
>>
>>
>> The voltages on the 6AQ5 are good
>>
>>
>> However the voltages on the 6EV7 are no so good.
>>
>>
>> On pin 6 of the 6EV7, instead of 110 I have 25. Not good. The 100k resistor feeding that pin had changed value to 133K. Replaced with no joy. I suspect the 10 uf cap to be fubar, but haven't found it yet.
>>
>>

>> There is a .01 cap that couples the audio from the 6AQ5 back to the second half of the 6EV7, as anti-vox. I'm going to lift one lead of that cap and see if my audio comes up to full bore.
>>
>>
>> Yes, I've tried a new/different 6EV7 and got the same results.
>>
>>
>> While this isn't a do or die project, it bugs me not having one of my Drake radios not working.
>>
>>
>> Any ideas before I dig deeper?
>>
>>
>> Mike, WB8VGE
>> The HeathkitShop.com
>>
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>>
>>
>> [Non-text portions of this message have been removed]
>

20771. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:30:10 UTC
From: Richard Knoppow
Topic: 20758 Message: 20771

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 06, 2014 9:05 AM
Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating

> The manuals specify Power Requirement at 60W for all
> models. This is 0.5A at 120 VAC, but we
> gotta allow for that 'bright' flash at the turn-on with
> the 'light-bulb' test fixture.... It
> takes longer for the initial cap charge and cold filament
> surge to finish to cover with just the
> 'Slo-Blo' time delay.
>
> So you gonna need a R-4A 'combo' CD??
>
> 73, Garey - K4OAH
> Glen Allen, VA

Fuse size is something I don't remember seeing covered
in any engineering texts. I did read somewhere that the
usual practice is to fuse for twice the normal demand
current. I don't think that can be a good general rule.
Also, there are several speeds of fuses; common ones are
either fast blow or slow blow but there are extra fast blow
and I think delay fuses too. There are also anti-arc fuses,
I think the ones with springs in them are of this type. Your
fellow with the no.2 wire sounds like the penny in the fuse
box, works fine until the fire department has to come.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20772. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:39:11 UTC
From: Richard Knoppow
Topic: 20741 Message: 20772

----- Original Message -----
From: <w1es1982@...>
To: <DrakeRadio@yahoogroups.com>
Cc: "Garey Barrell" <k4oah@...>
Sent: Tuesday, May 06, 2014 10:01 AM
Subject: Re: [DrakeRadio] Tubes....

> Maybe it's not an 866. I do know it has a MV rectifier
> using a 4-pin layout, so assumed an 866.
>
> Yes, and I am concerned about it for that very reason.
> It's long past time that I rehabbed this old boy: I've
> owned it for over 28 years - bought it for $25 at the
> Framingham (MA) hamfest back in the 80's. Still has the
> price tag on it and I rememeber using it when my shack was
> in what became my younger (28-yo) son's bedroom. That's
> where my first C-Line lived, too.
>
> Yeah, it was funny - I had one weak 6HS6 and one with
> shorts. Replaced them and the receivers worked better
> afterwards. The weak one is still in a box in case I
> someday have no alternative. Yes, I also have some 6AH6's
> and have tried them in place of the 6HS6's just to see if
> they work. They do, but I'm sure there are some other
> issues like dynamic range and IMD that could be affected
> by changing over to them.
>
> I plan on taking some photos when I start digging into the
> tester. It should be interesting and educational.
>
> Later -
>
> Steve, W1ES/4

I was surprised when I found out my TV-7 has a mercury
vapor rectifier and runs it on its side. Also there is
nothing in the instructions about warming it up. I use the
tester fairly often and have not had a problem. I have
forgotten the tube type in it but at one time there were
many small sized mercury vapor rectifiers such as the 83,
note not the 83-V which is a vacuum tube replacement. I
suspect mercury tubes were used because they have a low
voltage drop that stays constant over a wide current range.
Thats why they are used in transmitter power supplies;
relatively low power dissipation and good regulation. A

silicon rectifier will often replace these. If you stack several of them you can about duplicate the voltage drop of the mercury tube. Most mercury tubes have a constant voltage drop of about 15 volts, a silicon diode about 1.5 volts so ten diodes stacked will give you the same voltage and have even better regulation. This is different than when replacing vacuum tube diodes which do not have a constant voltage drop or constant equivalent resistance. The internal resistance follows the 3 halves power law that is common to vacuum tubes. Anyway, I am going to leave my TV-7 alone until I need to change something.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20773. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:41:58 UTC
From: Garey Barrell
Topic: 20499 Message: 20773

Mike -

Brand of PA tubes?? Old Amperex, EIMAC or New (Chinese) Amperex.??

Excessive Grid current isn't the problem, it's a symptom. Loading into a dummy load, with the
LOAD control at minimum, you will see excessive grid current with drive. When you increase the
LOAD clockwise, and power is transferred to the load, the Grid current will drop. If you increase the Drive, the Grid current will increase again, increasing the LOAD further will again
reduce the Grid current.

So the problem is not excessive Grid current, the problem is that the PA is NOT seeing (matched)
to the load, and little power is being transferred. If you take a fully operational amplifier,
and leave the LOAD control at 0 as you increase the drive, you will see this exact behavior.
Your amp acts exactly as I would expect if you DID NOT advance the LOAD control. (Which is why
that was my first question, 'is the LOAD cap turning as you turn the knob!') :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Michael Engstrom wrote:
> Hello all...
>
> Tnx to everyone... Garey, Paul, Jim, Stu, Joe and many others for there
> help. I am summarized the problem and the actions taken, and for now I'm
> going to give it a rest.
>
> It's a Drake L4B amplifier with excellent tubes and a good power supply
> that only puts out about 350 watts on all bands.
>
> Band: Any
> Idle plate current, keyed, no drive: 120ma.
> Drive: 10 watts from ft1000
> Grid current: 220ma
> Plate voltage: 2500 under load.
> Plate current 250ma. W/ a sharp dip.

> Power out: abt 350W. Measured with L4B meter and external watt meter.
> SWR <1.5:1. Antenna or dummy load.
>
> Increasing the LOAD only produces less RF output and re-dipping the plate
> becomes very broad (not sharp).
>
> On 80, 40 and 20 the greatest power output happens when the LOAD control is
> fully counter-clockwise or maximum capacity. On 15 and 10, I can advance
> the LOAD a little bit Clock Wise to get peek power, but I don't advance it
> much.
>
> Plate current dips where it's supposed to as indicated by the RedPointer on
> the front panel TUNE control.
>
> Input SWR is good. <1.5:1.
>
> &&&& Observations/Actions &&&&
>
> It seems like a lot of grid current for a small amount of drive.
>
> Cleaned all contacts, wafer switches and relay.
>
> Made sure that the input wafer switches and the output tank circuit band
> switch are synchronized. (There's a plastic chain that keeps them
> synchronize when turning the BAND switch.)
>
> All the RF Chokes test good... They look good too, no dark or brown spots.
>
> There's Low resistance from anodes to the high-voltage connector. Main RF
> choke had good continuity, low resistance, just a few ohms.
>
> It seems like the answer rests in the fact that there is so much grid
> current with so little drive?
>
> When the L4B is keyed, +120 volts is removed from the cathode and the
> center tap of the filament transformer is grounded through a 1 ohm 10W
> resistor. Checks okay. Normal idle plate current of 120ma flows and grids
> pull current with drive.
>
> Its acting like an amplifier the doesn't have any plate voltage or low
> plate voltage or some resistance in the anode circuit or a high voltage
> power supply problem. But the high-voltage remains consistent, only
> changing a couple hundred volts underload which is normal.
>
> Stumped for now.
>
> 73,
> Mike AA7WM
>

20774. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 17:49:09 UTC
From: Garey Barrell
Topic: 20758 Message: 20774

Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> Your fellow with the no.2 wire sounds like the penny in the fuse box, works fine until the fire department has to come.
>
>
>

20775. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 18:18:39 UTC
From: vacuuminded2@...
Topic: 20758 Message: 20775

Oh come on, I'm just 28 but even I know the 'ol penny trick!

Gotta use an old one that's solid copper though.. Not this copper plated zinc crap they pass off as currency today! Maybe a silver dime would work even better... Ohmm...

C

Sent from my outdated iPhone wireless thingy

On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:

> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!! :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Richard Knoppow wrote:
> > Your fellow with the no.2 wire sounds like the penny in the fuse box, works fine until the fire department has to come.
> >
> >
> >
> >
> >

[Non-text portions of this message have been removed]

20776. Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 18:20:57 UTC
From: <prosolar@...>
Topic: 20756 Message: 20776

serial number is 16998

for whatever reason, when it saw me coming with the test probes in hand, the plate voltage of the 6ev7 is now where it should be.

If I plug in a mic, in ssb mode, I now have VOX operation.

NO CW

it seems like the sidetone is not running and keying the VOX. Don't have time to dig into it deeper today

R103, 115 and C145 are in good shape. I have a strong 250 volts on the supply side of the resistor feeding the plate of the 6ev6

I'm not happy with the self-healing circuit and can't seem to get my mind around why the voltage is now correct when it checked it sunday, it was 24 vdc.

Mike, wb8vge

[Non-text portions of this message have been removed]

20777. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 18:42:27 UTC
From: Bernie
Topic: 20758 Message: 20777

Good one, Barry. These were mobiles, and 12 DC volt base stations.
Bernie in ND

----- Original Message -----
From: Barry
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 06, 2014 11:36 AM
Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating

"Your filter capacitor was shorted and I replaced that. Oh, and your transformer was burned out as well..."

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: barcand@...
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 6, 2014 10:59:01 AM
> Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating
>
> Garey,
> Seriously, when I was service manager at a GE Two-Way Shop, we had a
> tech
> that could fix anything in the shortest period of time, especially
> when
> anything came in blowing fuses. He had one of your "specialty
> fuses",
> would slam it in, turn on the radio and with his hand on the "off"
> knob,
> would look for smoke, heat, smell. Usually he found it quickly...and
> then
> went to work troubleshooting. I never had the guts to do that!!
> Bernie in ND
> WD0GMD
>
>
>
> On Tue, May 6, 2014 10:50 am, Garey Barrell wrote:
> > Doug -
> >
> > All 4-Line receivers are 0.75A, Slo-Blo, EXCEPT the R-4 that is
> > 0.6A,
> > Slo-Blo....
> >
> > The AC-3 and AC-4 were originally a 5A Slo-Blo. Drake later said a

> > 6-1/4A
> > Slo-Blo is ok if the
> > 5A blows too often!
> >
> > My favorite 'fuse' was a piece of #2 solid copper wire, carefully
> > straightened and filed smooth
> > on either end. Fit perfectly!
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > dj_coffman@... wrote:
> >> Ok all, here is my stupid question for the day; I'm sure this
> >> has been
> >> discussed numerous time however, I have not found the answer
> >> surfing
> >> the group.
> >>
> >>
> >> I have found a fuse rating for the R4B and R4C receivers in the
> >> schematic. For some reason, unless I have just overlooked it in
> >> the
> >> manual, the only place I find the information is in the schematic.
> >> The schematics show a requirement of 3/4 amp slow blow. Is this
> >> the
> >> correct fuse for all versions of the R4B and R4C receivers?
> >>
> >>
> >> I have an R4 without a manual, what is the fuse requirement for
> >> this
> >> receiver?
> >>
> >>
> >> Over the past 6 months, I have acquired 6 Drake receivers (Note
> >> Severe
> >> addiction or sickness) and am now working slowly to go through
> >> them
> >> and get them on the air. All of them have come to me with
> >> incorrect
> >> fuses ranging from 1.5 amp all the way to 5 amp. Luckily nothing
> >> has
> >> been burned up, but goodness they might as well wrap a double mint
> >> gum
> >> wrapper around the fuse and stick it in.
> >>
> >>

> >> Thanks for humoring my stupid questions,
> >>
> >>
> >> Doug - N9XTF
> >>
> >>
> >
> >
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20778. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 18:47:04 UTC
From: Bernie
Topic: 20758 Message: 20778

Do NOT ever use a .22 long rifle shell in an automobile fuse holder....despite the fact that it fits. It also gets warm, then hot, then BANG!

Bernie in ND
WDØGMD

----- Original Message -----
From: Garey Barrell
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 06, 2014 12:49 PM
Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating

Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Richard Knoppow wrote:
> Your fellow with the no.2 wire sounds like the penny in the fuse box, works fine until the fire department has to come.
>
>
>

[Non-text portions of this message have been removed]

20779. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 18:57:00 UTC
From: Garey Barrell
Topic: 20758 Message: 20779

Ah, but do you remember the 'Big Government' remedy for the problem???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

vacuuminded2@... wrote:
> Oh come on, I'm just 28 but even I know the 'ol penny trick!
>
> Gotta use an old one that's solid copper though.. Not this copper plated zinc crap they pass off as currency today! Maybe a silver dime would work even better... Ohmm...
>
> C
>
> Sent from my outdated iPhone wireless thingy
>
> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:
>
>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!! :-)
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Richard Knoppow wrote:
>>> Your fellow with the no.2 wire sounds like the penny in the fuse box, works fine until the fire department has to come.
>>>
>>>
>>>
>>
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20780. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 19:05:29 UTC
From: Garey Barrell
Topic: 20756 Message: 20780

OK. That's a Version 1, practically a TR-3!

CW and SIDETONE are generated in V2, probably the tube. This is what activates the VOX also in CW.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... wrote:
> serial number is 16998
>
> for whatever reason, when it saw me coming with the test probes in hand, the plate voltage of the 6ev7 is now where it should be.
>
>
> If I plug in a mic, in ssb mode, I now have VOX operation.
>
>
> NO CW
>
>
> it seems like the sidetone is not running and keying the VOX. Don't have time to dig into it deeper today
>
>
> R103, 115 and C145 are in good shape. I have a strong 250 volts on the supply side of the resistor feeding the plate of the 6ev6
>
>
> I'm not happy with the self-healing circuit and can't seem to get my mind around why the voltage is now correct when it checked it sunday, it was 24 vdc.
>
>
> Mike, wb8vge
>
>
> [Non-text portions of this message have been removed]
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>

> Yahoo Groups Links
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20781. fuses

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 19:20:28 UTC
From: Paul Kraemer
Topic: 20781 Message: 20781

All this discussion of fuses I am passing on a hamfest tip, since Dayton is coming up soon.
Check the fuses and ratings on old gear found at flea markets

If it is blown or way oversized it is a red flag that something may be wrong

That AC4 I recently was testing just to see what condition it was in had a 8 amp fuse in it. The supply ran 10 minutes before a capacitor exploded.

Had I looked at the fuse first I would have been more cautious and went immediately to rebuild

Paul K0UYA

20782. Re: [DrakeRadio] Tubes....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 19:20:51 UTC
From: Bruce
Topic: 20741 Message: 20782

Hello Steve,

The TV-7 uses an 83, not an 866.

73, Bruce WA8TNC
==========

w1es1982@... wrote:
> Maybe it's not an 866. I do know it has a MV rectifier using a 4-pin
> layout, so assumed an 866.
>
> Later -
>
> Steve, W1ES/4

20783. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 19:44:47 UTC
From: barcand@...
Topic: 20758 Message: 20783

Garey,
No I don't. Never heard of it, other than emptying the powder and
re-inserting the bullet.

Bernie in ND
WD0GMD

On Tue, May 6, 2014 1:57 pm, Garey Barrell wrote:
> Ah, but do you remember the 'Big Government' remedy for the problem???
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> vacuuminded2@... wrote:
>> Oh come on, I'm just 28 but even I know the 'ol penny trick!
>>
>> Gotta use an old one that's solid copper though.. Not this copper
>> plated zinc crap they pass off as currency today! Maybe a silver dime
>> would work even better... Ohmm...
>>
>> C
>>
>> Sent from my outdated iPhone wireless thingy
>>
>> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:
>>
>>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!!
>>> :-)
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Richard Knoppow wrote:
>>>> Your fellow with the no.2 wire sounds like the penny in the fuse box,
>>>> works fine until the fire department has to come.
>>>>
>>>>

>>>>
>>>
>>
>> [Non-text portions of this message have been removed]
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>> Yahoo Groups Links
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20784. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 20:05:51 UTC
From: Richard Knoppow
Topic: 20756 Message: 20784

----- Original Message -----
From: <prosolar@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 06, 2014 11:20 AM
Subject: [DrakeRadio] Re: Moving on to my fubar TR-4

> serial number is 16998
>
> for whatever reason, when it saw me coming with the test
> probes in hand, the plate voltage of the 6ev7 is now where
> it should be.
>
>
> If I plug in a mic, in ssb mode, I now have VOX operation.
>
>
> NO CW
>
>
> it seems like the sidetone is not running and keying the
> VOX. Don't have time to dig into it deeper today
>
>
> R103, 115 and C145 are in good shape. I have a strong 250
> volts on the supply side of the resistor feeding the plate
> of the 6ev6
>
>
> I'm not happy with the self-healing circuit and can't seem
> to get my mind around why the voltage is now correct when
> it checked it sunday, it was 24 vdc.
>
>
> Mike, wb8vge
>
Look for something like dirty tube pins, or bad socket
pins. Tube pins can be cleaned with a toothbrush and
toothpaste or even find still wool if very corroded but if
you use steel wool wash the pins to make sure there are no
metal particles adhering to them. Also, follow Garrey's
advice about working all the screws to make sure they ground
properly. It might also be worth poking and wiggling the
wiring. Its just possible there is a bad solder connection
or even one that was never soldered. Those can be
maddeningly intermittant. Since you got a low voltage

reading at a tube socket I would be more susicious of wiring
than of a tube.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20785. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 20:14:34 UTC
From: Mike
Topic: 20756 Message: 20785

Oh yeah....

Did all the simple things.

Mike wb8vge

The heathkitshop.com

Sent from my iPhone

> On May 6, 2014, at 4:05 PM, "Richard Knoppow" <1oldlens1@...> wrote:
>
>
> ----- Original Message -----
> From: <prosolar@...>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Tuesday, May 06, 2014 11:20 AM
> Subject: [DrakeRadio] Re: Moving on to my fubar TR-4
>
> > serial number is 16998
> >
> > for whatever reason, when it saw me coming with the test
> > probes in hand, the plate voltage of the 6ev7 is now where
> > it should be.
> >
> >
> > If I plug in a mic, in ssb mode, I now have VOX operation.
> >
> >
> > NO CW
> >
> >
> > it seems like the sidetone is not running and keying the
> > VOX. Don't have time to dig into it deeper today
> >
> >
> > R103, 115 and C145 are in good shape. I have a strong 250
> > volts on the supply side of the resistor feeding the plate
> > of the 6ev6
> >
> >
> > I'm not happy with the self-healing circuit and can't seem
> > to get my mind around why the voltage is now correct when
> > it checked it sunday, it was 24 vdc.
> >
> >

> > Mike, wb8vge
> >
> Look for something like dirty tube pins, or bad socket
> pins. Tube pins can be cleaned with a toothbrush and
> toothpaste or even find still wool if very corroded but if
> you use steel wool wash the pins to make sure there are no
> metal particles adhering to them. Also, follow Garrey's
> advice about working all the screws to make sure they ground
> properly. It might also be worth poking and wiggling the
> wiring. Its just possible there is a bad solder connection
> or even one that was never soldered. Those can be
> maddeningly intermittant. Since you got a low voltage
> reading at a tube socket I would be more susicious of wiring
> than of a tube.
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>

[Non-text portions of this message have been removed]

20786. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 20:49:52 UTC
From: Garey Barrell
Topic: 20758 Message: 20786

The "Fusestat"!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

barcand@... wrote:
> Garey,
> No I don't. Never heard of it, other than emptying the powder and
> re-inserting the bullet.
>
> Bernie in ND
> WD0GMD
>
>
>
> On Tue, May 6, 2014 1:57 pm, Garey Barrell wrote:
>> Ah, but do you remember the 'Big Government' remedy for the problem???
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> vacuuminded2@... wrote:
>>> Oh come on, I'm just 28 but even I know the 'ol penny trick!
>>>
>>> Gotta use an old one that's solid copper though.. Not this copper
>>> plated zinc crap they pass off as currency today! Maybe a silver dime
>>> would work even better... Ohmm...
>>>
>>> C
>>>
>>> Sent from my outdated iPhone wireless thingy
>>>
>>> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:
>>>
>>>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!!
>>>> :-)
>>>>
>>>> 73, Garey - K4OAH

>>>> Glen Allen, VA
>>>>
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>>
>>>> Richard Knoppow wrote:
>>>>> Your fellow with the no.2 wire sounds like the penny in the fuse box,
>>>>> works fine until the fire department has to come.
>>>>>
>>>>>
>>>>>
>>> [Non-text portions of this message have been removed]
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20787. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 20:55:04 UTC
From: vacuuminded2@...
Topic: 20758 Message: 20787

So that's where fusestats came from. Those blasted things were around by at least 1940, they are used in some Rock-Ola jukeboxes of the era. Guess they didn't take off that well, as Edison base plug fuses still greatly outsold fusestats when I left the hardware store a mere 9 years ago.

Chris

Sent from my outdated iPhone wireless thingy

On May 6, 2014, at 3:49 PM, Garey Barrell <k4oah@...> wrote:

> The "Fusestat"!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> barcand@... wrote:
> > Garey,
> > No I don't. Never heard of it, other than emptying the powder and
> > re-inserting the bullet.
> >
> > Bernie in ND
> > WD0GMD
> >
> >
> >
> > On Tue, May 6, 2014 1:57 pm, Garey Barrell wrote:
> >> Ah, but do you remember the 'Big Government' remedy for the problem???
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> vacuuminded2@... wrote:
> >>> Oh come on, I'm just 28 but even I know the 'ol penny trick!
> >>>
> >>> Gotta use an old one that's solid copper though.. Not this copper
> >>> plated zinc crap they pass off as currency today! Maybe a silver dime
> >>> would work even better... Ohmm...

> >>>
> >>> C
> >>>
> >>> Sent from my outdated iPhone wireless thingy
> >>>
> >>> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:
> >>>
> >>>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!!
> >>>> :-)
> >>>>
> >>>> 73, Garey - K4OAH
> >>>> Glen Allen, VA
> >>>>
> >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >>>> and TR-4/C Service Supplement CDs
> >>>> <www.k4oah.com>
> >>>>
> >>>> Richard Knoppow wrote:
> >>>>> Your fellow with the no.2 wire sounds like the penny in the fuse box,
> >>>>> works fine until the fire department has to come.
> >>>>>
> >>>>>
> >>>>>
> >>> [Non-text portions of this message have been removed]
> >>>
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> >>> ------------------------------------
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> >>> Yahoo Groups Links
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> > Yahoo Groups Links
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[Non-text portions of this message have been removed]

20788. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 20:59:36 UTC
From: Garey Barrell
Topic: 20756 Message: 20788

Like replace V2??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Mike wrote:
> Oh yeah....
>
> Did all the simple things.
>
> Mike wb8vge
>
> The heathkitshop.com
>
>

20789. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 21:06:12 UTC
From: Garey Barrell
Topic: 20758 Message: 20789

the Edison base was standard for a long time, but unfortunately it was just 'penny sized'.

So along comes the Gummint, decreeing Fusestats. All the good little citizens were supposed to
hire electricians to come in and thread the little adapters they sold (complete with 'teeth' to
prevent removing the adapter once installed) into our Edison based fuse boxes, thereby protecting us from ourselves...

Some things never change!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

vacuuminded2@... wrote:
> So that's where fusestats came from. Those blasted things were around by at least 1940, they are used in some Rock-Ola jukeboxes of the era. Guess they didn't take off that well, as Edison base plug fuses still greatly outsold fusestats when I left the hardware store a mere 9 years ago.
>
> Chris
>
> Sent from my outdated iPhone wireless thingy
>
> On May 6, 2014, at 3:49 PM, Garey Barrell <k4oah@...> wrote:
>
>> The "Fusestat"!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> barcand@... wrote:
>>> Garey,
>>> No I don't. Never heard of it, other than emptying the powder and
>>> re-inserting the bullet.
>>>
>>> Bernie in ND
>>> WD0GMD

>>>
>>>
>>>
>>> On Tue, May 6, 2014 1:57 pm, Garey Barrell wrote:
>>>> Ah, but do you remember the 'Big Government' remedy for the problem???
>>>>
>>>> 73, Garey - K4OAH
>>>> Glen Allen, VA
>>>>
>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>> and TR-4/C Service Supplement CDs
>>>> <www.k4oah.com>
>>>>
>>>> vacuuminded2@... wrote:
>>>>> Oh come on, I'm just 28 but even I know the 'ol penny trick!
>>>>>
>>>>> Gotta use an old one that's solid copper though.. Not this copper
>>>>> plated zinc crap they pass off as currency today! Maybe a silver dime
>>>>> would work even better... Ohmm...
>>>>>
>>>>> C
>>>>>
>>>>> Sent from my outdated iPhone wireless thingy
>>>>>
>>>>> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...> wrote:
>>>>>
>>>>>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of people!!
>>>>>> :-)
>>>>>>
>>>>>> 73, Garey - K4OAH
>>>>>> Glen Allen, VA
>>>>>>
>>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>>>>> and TR-4/C Service Supplement CDs
>>>>>> <www.k4oah.com>
>>>>>>
>>>>>> Richard Knoppow wrote:
>>>>>>> Your fellow with the no.2 wire sounds like the penny in the fuse box,
>>>>>>> works fine until the fire department has to come.
>>>>>>>
>>>>>>>

20790. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 21:11:18 UTC
From: Richard Knoppow
Topic: 20758 Message: 20790

----- Original Message -----
From: <vacuuminded2@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 06, 2014 1:55 PM
Subject: Re: [DrakeRadio] Drake Receiver Fuse Rating

> So that's where fusestats came from. Those blasted things
> were around by at least 1940, they are used in some
> Rock-Ola jukeboxes of the era. Guess they didn't take off
> that well, as Edison base plug fuses still greatly outsold
> fusestats when I left the hardware store a mere 9 years
> ago.
>
> Chris
'

A google search shows Fusestats are still made. This
house had adaptors for Fustats in the fuse box before it was
re-wired with circuit breakers. I think circuit breakers
are required by code now.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20791. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 21:34:40 UTC
From: Mike
Topic: 20756 Message: 20791

I haven't had much time to spend on this project. Working 7 days 12 hr shifts.

I did check all tubes in tester and nothing showed up as being bad.

If I am not too pooped I'll sub in a different one tomorrow.

I am working till 3 am.

Mike

Wb8vge

Sent from my iPhone

> On May 6, 2014, at 4:59 PM, Garey Barrell <k4oah@...> wrote:
>
> Like replace V2??
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
>
>
>

[Non-text portions of this message have been removed]

20792. Re: [DrakeRadio] Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 22:31:10 UTC
From: Richard Knoppow
Topic: 20756 Message: 20792

----- Original Message -----
From: "Mike" <prosolar@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 06, 2014 2:34 PM
Subject: Re: [DrakeRadio] Re: Moving on to my fubar TR-4

>I haven't had much time to spend on this project. Working 7
>days 12 hr shifts.
>
> I did check all tubes in tester and nothing showed up as
> being bad.
>
> If I am not too pooped I'll sub in a different one
> tomorrow.
>
> I am working till 3 am.
>
> Mike
>
> Wb8vge
>
Oh, golly, forget the radio and get some sleep while you
can. The radio is not worth the stress plus when you are
more rested you may discover the problem right away. I hope
you are making a fortune off this.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20793. Re: [DrakeRadio] Drake Receiver Fuse Rating

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-06 22:40:29 UTC
From: M K
Topic: 20758 Message: 20793

I remember those-the adapters caused more problems than anything else.

On Tue, May 6, 2014 at 5:06 PM, Garey Barrell <k4oah@...> wrote:

>
>
> the Edison base was standard for a long time, but unfortunately it was
> just 'penny sized'.
>
> So along comes the Gummint, decreeing Fusestats. All the good little
> citizens were supposed to
> hire electricians to come in and thread the little adapters they sold
> (complete with 'teeth' to
> prevent removing the adapter once installed) into our Edison based fuse
> boxes, thereby
> protecting us from ourselves...
>
> Some things never change!!
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> vacuuminded2@... wrote:
> > So that's where fusestats came from. Those blasted things were around by
> at least 1940, they are used in some Rock-Ola jukeboxes of the era. Guess
> they didn't take off that well, as Edison base plug fuses still greatly
> outsold fusestats when I left the hardware store a mere 9 years ago.
> >
> > Chris
> >
> > Sent from my outdated iPhone wireless thingy
> >
> > On May 6, 2014, at 3:49 PM, Garey Barrell <k4oah@mindspring.com> wrote:
> >
> >> The "Fusestat"!
> >>
> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> barcand@nccray.com wrote:
> >>> Garey,
> >>> No I don't. Never heard of it, other than emptying the powder and
> >>> re-inserting the bullet.
> >>>
> >>> Bernie in ND
> >>> WD0GMD
> >>>
> >>>
> >>>
> >>> On Tue, May 6, 2014 1:57 pm, Garey Barrell wrote:
> >>>> Ah, but do you remember the 'Big Government' remedy for the problem???
> >>>>
> >>>> 73, Garey - K4OAH
> >>>> Glen Allen, VA
> >>>>
> >>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >>>> and TR-4/C Service Supplement CDs
> >>>> <www.k4oah.com>
> >>>>
> >>>> vacuuminded2@yahoo.com wrote:
> >>>>> Oh come on, I'm just 28 but even I know the 'ol penny trick!
> >>>>>
> >>>>> Gotta use an old one that's solid copper though.. Not this copper
> >>>>> plated zinc crap they pass off as currency today! Maybe a silver dime
> >>>>> would work even better... Ohmm...
> >>>>>
> >>>>> C
> >>>>>
> >>>>> Sent from my outdated iPhone wireless thingy
> >>>>>
> >>>>> On May 6, 2014, at 12:49 PM, Garey Barrell <k4oah@...>
> wrote:
> >>>>>
> >>>>>> Wow! "Penny in the fuse box" That's gonna confuse a bunch of
> people!!
> >>>>>> :-)
> >>>>>>
> >>>>>> 73, Garey - K4OAH
> >>>>>> Glen Allen, VA
> >>>>>>
> >>>>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >>>>>> and TR-4/C Service Supplement CDs
> >>>>>> <www.k4oah.com>
> >>>>>>
> >>>>>> Richard Knoppow wrote:
> >>>>>>> Your fellow with the no.2 wire sounds like the penny in the fuse

> box,
> >>>>>>> works fine until the fire department has to come.
> >>>>>>>
> >>>>>>>
>
>
>

[Non-text portions of this message have been removed]

20794. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 00:19:21 UTC
From: Steve VK2SJA
Topic: 20499 Message: 20794

> Your amp acts exactly as I would expect if you DID NOT advance the LOAD
> control.

I know nothing about L-4B's. Never even seen one. So by all means tell me to get back inside my soap-box. But I have a thought...

Reading what Garey has said and then glancing at the circuit. It occurred to me:-

How is the LOAD capacitor body connected to electrical Earth? Is it possible that the circuit is seeing a series capacitance between the LOAD capacitor body and Earth? Which prevents the LOAD cap from presenting the correct capacitance value? Loose screws, cracked wire and/or cold solder joint introducing unwanted series capacitance where none should be?

Anyway, just an idea.

73, Steve.

> Mike -
>
> Brand of PA tubes?? Old Amperex, EIMAC or New (Chinese) Amperex.??
>
> Excessive Grid current isn't the problem, it's a symptom. Loading into a
> dummy load, with the
> LOAD control at minimum, you will see excessive grid current with drive.
> When you increase the
> LOAD clockwise, and power is transferred to the load, the Grid current
> will drop. If you
> increase the Drive, the Grid current will increase again, increasing the
> LOAD further will again
> reduce the Grid current.
>
> So the problem is not excessive Grid current, the problem is that the PA
> is NOT seeing (matched)
> to the load, and little power is being transferred. If you take a fully
> operational amplifier,
> and leave the LOAD control at 0 as you increase the drive, you will see
> this exact behavior.
> Your amp acts exactly as I would expect if you DID NOT advance the LOAD
> control. (Which is why
> that was my first question, 'is the LOAD cap turning as you turn the
> knob!') :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA

>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Michael Engstrom wrote:
>> Hello all...
>>
>> Tnx to everyone... Garey, Paul, Jim, Stu, Joe and many others for there
>> help. I am summarized the problem and the actions taken, and for now
>> I'm
>> going to give it a rest.
>>
>> It's a Drake L4B amplifier with excellent tubes and a good power supply
>> that only puts out about 350 watts on all bands.
>>
>> Band: Any
>> Idle plate current, keyed, no drive: 120ma.
>> Drive: 10 watts from ft1000
>> Grid current: 220ma
>> Plate voltage: 2500 under load.
>> Plate current 250ma. W/ a sharp dip.
>> Power out: abt 350W. Measured with L4B meter and external watt meter.
>> SWR <1.5:1. Antenna or dummy load.
>>
>> Increasing the LOAD only produces less RF output and re-dipping the
>> plate
>> becomes very broad (not sharp).
>>
>> On 80, 40 and 20 the greatest power output happens when the LOAD control
>> is
>> fully counter-clockwise or maximum capacity. On 15 and 10, I can
>> advance
>> the LOAD a little bit Clock Wise to get peek power, but I don't advance
>> it
>> much.
>>
>> Plate current dips where it's supposed to as indicated by the RedPointer
>> on
>> the front panel TUNE control.
>>
>> Input SWR is good. <1.5:1.
>>
>> &&&& Observations/Actions &&&&
>>
>> It seems like a lot of grid current for a small amount of drive.
>>
>> Cleaned all contacts, wafer switches and relay.
>>
>> Made sure that the input wafer switches and the output tank circuit band

>> switch are synchronized. (There's a plastic chain that keeps them
>> synchronize when turning the BAND switch.)
>>
>> All the RF Chokes test good... They look good too, no dark or brown
>> spots.
>>
>> There's Low resistance from anodes to the high-voltage connector. Main
>> RF
>> choke had good continuity, low resistance, just a few ohms.
>>
>> It seems like the answer rests in the fact that there is so much grid
>> current with so little drive?
>>
>> When the L4B is keyed, +120 volts is removed from the cathode and the
>> center tap of the filament transformer is grounded through a 1 ohm 10W
>> resistor. Checks okay. Normal idle plate current of 120ma flows and
>> grids
>> pull current with drive.
>>
>> Its acting like an amplifier the doesn't have any plate voltage or low
>> plate voltage or some resistance in the anode circuit or a high voltage
>> power supply problem. But the high-voltage remains consistent, only
>> changing a couple hundred volts underload which is normal.
>>
>> Stumped for now.
>>
>> 73,
>> Mike AA7WM
>>
>
>

20795. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 02:19:37 UTC
From: Garey Barrell
Topic: 20499 Message: 20795

Steve -

Good thought, but the problem as I see it is too MUCH capacitance to ground. 0 on the LOAD cap
is full mesh, plus a few fixed caps switched in on the lower bands. Increasing the LOAD control
reduces the capacitance to ground.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve VK2SJA wrote:
>> Your amp acts exactly as I would expect if you DID NOT advance the LOAD
>> control.
> I know nothing about L-4B's. Never even seen one. So by all means tell me
> to get back inside my soap-box. But I have a thought...
>
> Reading what Garey has said and then glancing at the circuit. It occurred
> to me:-
>
> How is the LOAD capacitor body connected to electrical Earth? Is it
> possible that the circuit is seeing a series capacitance between the LOAD
> capacitor body and Earth? Which prevents the LOAD cap from presenting the
> correct capacitance value? Loose screws, cracked wire and/or cold solder
> joint introducing unwanted series capacitance where none should be?
>
> Anyway, just an idea.
>
> 73, Steve.
>
>
>> Mike -
>>
>> Brand of PA tubes?? Old Amperex, EIMAC or New (Chinese) Amperex.??
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>> Excessive Grid current isn't the problem, it's a symptom. Loading into a
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>> When you increase the
>> LOAD clockwise, and power is transferred to the load, the Grid current
>> will drop. If you
>> increase the Drive, the Grid current will increase again, increasing the

>> LOAD further will again
>> reduce the Grid current.
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>> So the problem is not excessive Grid current, the problem is that the PA
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>> operational amplifier,
>> and leave the LOAD control at 0 as you increase the drive, you will see
>> this exact behavior.
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>> control. (Which is why
>> that was my first question, 'is the LOAD cap turning as you turn the
>> knob!') :-)
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>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Michael Engstrom wrote:
>>> Hello all...
>>>
>>> Tnx to everyone... Garey, Paul, Jim, Stu, Joe and many others for there
>>> help. I am summarized the problem and the actions taken, and for now
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>>>
>>> It's a Drake L4B amplifier with excellent tubes and a good power supply
>>> that only puts out about 350 watts on all bands.
>>>
>>> Band: Any
>>> Idle plate current, keyed, no drive: 120ma.
>>> Drive: 10 watts from ft1000
>>> Grid current: 220ma
>>> Plate voltage: 2500 under load.
>>> Plate current 250ma. W/ a sharp dip.
>>> Power out: abt 350W. Measured with L4B meter and external watt meter.
>>> SWR <1.5:1. Antenna or dummy load.
>>>
>>> Increasing the LOAD only produces less RF output and re-dipping the
>>> plate
>>> becomes very broad (not sharp).
>>>
>>> On 80, 40 and 20 the greatest power output happens when the LOAD control
>>> is
>>> fully counter-clockwise or maximum capacity. On 15 and 10, I can
>>> advance
>>> the LOAD a little bit Clock Wise to get peek power, but I don't advance

>>> it
>>> much.
>>>
>>> Plate current dips where it's supposed to as indicated by the RedPointer
>>> on
>>> the front panel TUNE control.
>>>
>>> Input SWR is good. <1.5:1.
>>>
>>> &&&& Observations/Actions &&&&
>>>
>>> It seems like a lot of grid current for a small amount of drive.
>>>
>>> Cleaned all contacts, wafer switches and relay.
>>>
>>> Made sure that the input wafer switches and the output tank circuit band
>>> switch are synchronized. (There's a plastic chain that keeps them
>>> synchronize when turning the BAND switch.)
>>>
>>> All the RF Chokes test good... They look good too, no dark or brown
>>> spots.
>>>
>>> There's Low resistance from anodes to the high-voltage connector. Main
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>>> choke had good continuity, low resistance, just a few ohms.
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>>> It seems like the answer rests in the fact that there is so much grid
>>> current with so little drive?
>>>
>>> When the L4B is keyed, +120 volts is removed from the cathode and the
>>> center tap of the filament transformer is grounded through a 1 ohm 10W
>>> resistor. Checks okay. Normal idle plate current of 120ma flows and
>>> grids
>>> pull current with drive.
>>>
>>> Its acting like an amplifier the doesn't have any plate voltage or low
>>> plate voltage or some resistance in the anode circuit or a high voltage
>>> power supply problem. But the high-voltage remains consistent, only
>>> changing a couple hundred volts underload which is normal.
>>>
>>> Stumped for now.
>>>
>>> 73,
>>> Mike AA7WM
>>>
>>

20796. Re: [DrakeRadio] L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 05:33:13 UTC
From: Richard Knoppow
Topic: 20499 Message: 20796

----- Original Message -----
From: "Garey Barrell" <k4oah@...>
To: <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 06, 2014 7:19 PM
Subject: Re: [DrakeRadio] L4B - low output with new tubes.

> Steve -
>
> Good thought, but the problem as I see it is too MUCH
> capacitance to ground. 0 on the LOAD cap
> is full mesh, plus a few fixed caps switched in on the
> lower bands. Increasing the LOAD control
> reduces the capacitance to ground.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

Did the OP ever examine the load capacitor to see if
its doing what the knob says, that is it may be turning but
maximum capacitance may not really be at maximum CCW. I
don't even know if this is mechanically possible. I am also
somewhat suspicious of the band switch section that works
the load capacitors. The broadening of the plate dip is
characteristic of increased loading since the load changes
the Q of the plate tank but the power should be increasing.
If the loading is too much it will cause the output to
become lower. I think the dip stays broad but don't
remember. I think I would examine the whole bandswitching
arrangement including the bead chain to see if its out of
kilter somehow.
If there was too little load I would be suspicious that
one section of the loading cap was not attached at the band
switch.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20797. Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 11:44:50 UTC
From: Steve Wedge
Topic: 20797 Message: 20797

With respect to that tube tester I have, I'm planning on replacing the mercury rectifier with some 1N4007's and series resistors. I'd like to do this in a modular fashion by using an old 4-pin tube base. Anyone got a couple of these? I don't have any tubes that old anymore.

Here's a chance to get rid of any you have that are kaput and make a few bucks...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

20798. Re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 14:11:53 UTC
From: <tjb813@...>
Topic: 20499 Message: 20798

What you have described is a classic Plate Blocking capacitor problem. Try a replacement. After that check continuity through the band switch to assure the correct coil tap selections (as you go higher in freq, it shorts out windings). Also, check the rf choke on the amplifier output line.

Check relay contacts and check that the SO239s socket centers securely hold the PL259 center pins (and check for oxidation). (that occurs more on dummy loads, but the L4 is a few years old).

This is where I start looking with these symptoms.

Good luck.

Tim
KD8CN

[Non-text portions of this message have been removed]

20799. Re: [DrakeRadio] Re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 14:27:13 UTC
From: Garey Barrell
Topic: 20499 Message: 20799

Tim -

The Plate Blocking capacitor was the second thought. The L-4B uses two 0.001 uF caps in parallel. Not likely both would open up at the same time?? Agree it would be best to sub, but
not easy to hand, and both 'checked' good.

The problem is on all bands, and switch contacts have been checked and verified to be in sync
with the input network switch that is chain driven.

A shorted turn in the output RF choke would make smoke with 350 to 400W that is coming out of
the amp.

100W of drive goes through the amp in standby to the load with minimal reflected power. Input
match is good, shows minimal reflected power on wattmeter between transceiver and amp input.

Sure seems like we have checked and verified 'everything', but apparently not quite!!

I'm looking forward to finding the 'real' problem... "Well, I never thought of THAT!!!" :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tjb813@... wrote:
> What you have described is a classic Plate Blocking capacitor problem. Try a replacement. After that check continuity through the band switch to assure the correct coil tap selections (as you go higher in freq, it shorts out windings). Also, check the rf choke on the amplifier output line.
>
> Check relay contacts and check that the SO239s socket centers securely hold the PL259 center pins (and check for oxidation). (that occurs more on dummy loads, but the L4 is a few years old).
>
> This is where I start looking with these symptoms.
>
> Good luck.
>
>
> Tim

> KD8CN
>
>

20800. Re: Moving on to my fubar TR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 15:33:56 UTC
From: <prosolar@...>
Topic: 20756 Message: 20800

Gang,

at a quarter to 4 this morning, I fired up the TR4. I thought for sure I had a spare 12AV6, but none were found. I'll have to order one, or wait until dayton for a spare.

the voltages checked within limits on the pins.

before I head to work, I'll scope the circuit and see if the sidetone is running,

mike, wb8vge
the heathkitshop.com

[Non-text portions of this message have been removed]

20801. Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 17:22:12 UTC
From: Chris Farley
Topic: 20797 Message: 20801

Don't do it. The charts were calibrated with a machine using the 83 and 5Y3 rectifiers, and their associated voltage drop curve vs current. Replacing them with anything but, will completely change that curve and totally blow the accuracy of the tester. Many have been here, and many have failed. This was explained to me in great detail by the legendary Wendell E. Hall several years ago before he died.

In normal intermittent service, those two tubes will last pretty much forever. Just spring for another 83 and tweak the calibration if needed.

Regards,
Chris kc9ieq

From: Steve Wedge <w1es1982@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 7, 2014 6:44 AM
Subject: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

With respect to that tube tester I have, I'm planning on replacing the mercury rectifier with some 1N4007's and series resistors. I'd like to do this in a modular fashion by using an old 4-pin tube base. Anyone got a couple of these? I don't have any tubes that old anymore.

Here's a chance to get rid of any you have that are kaput and make a few bucks...

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20802. Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 17:34:15 UTC
From: Garey Barrell
Topic: 20797 Message: 20802

AMEN...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Chris Farley wrote:
> Don't do it. The charts were calibrated with a machine using the 83 and 5Y3 rectifiers, and their associated voltage drop curve vs current. Replacing them with anything but, will completely change that curve and totally blow the accuracy of the tester. Many have been here, and many have failed. This was explained to me in great detail by the legendary Wendell E. Hall several years ago before he died.
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> In normal intermittent service, those two tubes will last pretty much forever. Just spring for another 83 and tweak the calibration if needed.
>
> Regards,
> Chris kc9ieq
>
>
>
> _____
> From: Steve Wedge <w1es1982@...>
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 7, 2014 6:44 AM
> Subject: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?
>
>
>
>
> With respect to that tube tester I have, I'm planning on replacing the mercury rectifier with some 1N4007's and series resistors. I'd like to do this in a modular fashion by using an old 4-pin tube base. Anyone got a couple of these? I don't have any tubes that old anymore.
>
> Here's a chance to get rid of any you have that are kaput and make a few bucks...
>
> Steve Wedge, W1ES/4
>
>

20803. Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 17:42:17 UTC
From: Chris Farley
Topic: 20797 Message: 20803

To follow up- Just read your posts about the TV-10. Why can't I find that kind of stuff at garage sales!

Have you once, EVER heard of the 83 in a tube tester physically blowing? I haven't. Remember on the 82 and 83 we're talking hundreds of volts here, not thousands like would be seen on a 866, 872, etc. It's still best to let them warm up for a few minutes allowing the mercury to fully vaporize, but flash-over is basically a non-issue in this application. Even if an 83 DID flash over or short, I sincerely doubt it would physically break and outgas.

THEN we have the debate about just how toxic mercury really is (or isn't).. Let's leave that one for another forum :)

My .02 in a nutshell? If that 83 hasn't given you any trouble in the last 28 years you've owned it, it's not going to now. Can't hurt to pull it out and check in another tester, but I'll bet it's just fine.

Regards,
Chris

From: Chris Farley <vacuuminded2@yahoo.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 7, 2014 12:22 PM
Subject: Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Don't do it. The charts were calibrated with a machine using the 83 and 5Y3 rectifiers, and their associated voltage drop curve vs current. Replacing them with anything but, will completely change that curve and totally blow the accuracy of the tester. Many have been here, and many have failed. This was explained to me in great detail by the legendary Wendell E. Hall several years ago before he died.

In normal intermittent service, those two tubes will last pretty much forever. Just spring for another 83 and tweak the calibration if needed.

Regards,
Chris kc9ieq

From: Steve Wedge <w1es1982@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 7, 2014 6:44 AM
Subject: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

With respect to that tube tester I have, I'm planning on replacing the mercury rectifier with some 1N4007's and series resistors. I'd like to do this in a modular fashion by using

an old 4-pin tube base. Anyone got a couple of these? I don't have any tubes that old anymore.

Here's a chance to get rid of any you have that are kaput and make a few bucks...

Steve Wedge, W1ES/4

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[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20804. Re: [DrakeRadio] Re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 18:02:45 UTC
From: <tjb813@...>
Topic: 20499 Message: 20804

Assuming, as you state, that everything checks-out, I would remove the tubes, connect a 3k or something close from one anode connector to ground and use a dip meter to see if the final tank resonates somewhere near the correct posiitons of the capacitors. This is not an exact value, but it should result in resonable readings.

Is it possible the plate choke is damaged (shorted turns) or the bypass cap at the HV connection to the plate choke is open?

Either of these will cause "tuning" issues at the anode circuit.

Tim
KD8CN

[Non-text portions of this message have been removed]

20805. Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 18:09:27 UTC
From: Steve Wedge
Topic: 20797 Message: 20805

Thanks, guys. I think I'll just re-cap it, replace the two worn-out sockets and call it done

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: Chris Farley
Sent: Wednesday, May 07, 2014 1:42 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

To follow up- Just read your posts about the TV-10. Why can't I find that kind of stuff at garage sales!

Have you once, EVER heard of the 83 in a tube tester physically blowing? I haven't. Remember on the 82 and 83 we're talking hundreds of volts here, not thousands like would be seen on a 866, 872, etc. It's still best to let them warm up for a few minutes allowing the mercury to fully vaporize, but flash-over is basically a non-issue in this application. Even if an 83 DID flash over or short, I sincerely doubt it would physically break and outgas.

THEN we have the debate about just how toxic mercury really is (or isn't).. Let's leave that one for another forum :)

My .02 in a nutshell? If that 83 hasn't given you any trouble in the last 28 years you've owned it, it's not going to now. Can't hurt to pull it out and check in another tester, but I'll bet it's just fine.

Regards,
Chris

From: Chris Farley <vacuuminded2@yahoo.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 7, 2014 12:22 PM
Subject: Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Don't do it. The charts were calibrated with a machine using the 83 and 5Y3 rectifiers, and their associated voltage drop curve vs current. Replacing them with anything but, will completely change that curve and totally blow the accuracy of the tester. Many have been here, and many have failed. This was explained to me in great detail by the legendary Wendell E. Hall several years ago before he died.

In normal intermittent service, those two tubes will last pretty much forever. Just spring for another 83 and tweak the calibration if needed.

Regards,
Chris kc9ieq

From: Steve Wedge <w1es1982@...>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 7, 2014 6:44 AM
Subject: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

With respect to that tube tester I have, I'm planning on replacing the mercury rectifier with some 1N4007's and series resistors. I'd like to do this in a modular fashion by using an old 4-pin tube base. Anyone got a couple of these? I don't have any tubes that old anymore.

Here's a chance to get rid of any you have that are kaput and make a few bucks...

Steve Wedge, W1ES/4

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[Non-text portions of this message have been removed]

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[Non-text portions of this message have been removed]

20806. Re: [DrakeRadio] Anyone got a couple old 4-pin tube bases laying around?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 18:40:07 UTC
From: L L bahr
Topic: 20797 Message: 20806

Yes, my 83 burned out it's filament in my TV-7. I then ordered another tube and it's filament was burned out right out of the box! I then ordered another tube and it worked just fine. Yes, they do go bad.
Lee, w0vt

To follow up- Just read your posts about the TV-10. Why can't I find that kind of stuff at garage sales!

Have you once, EVER heard of the 83 in a tube tester physically blowing? I haven't. Remember on the 82 and 83 we're talking hundreds of volts here, not thousands like would be seen on a 866, 872, etc. It's still best to let them warm up for a few minutes allowing the mercury to fully vaporize, but flash-over is basically a non-issue in this application. Even if an 83 DID flash over or short, I sincerely doubt it would physically break and outgas.

[Non-text portions of this message have been removed]

20807. Re: [DrakeRadio] Re: L4B - low output with new tubes.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-07 19:23:26 UTC
From: Garey Barrell
Topic: 20499 Message: 20807

Tim -

That was my last suggestion! I said terminate the input to the pi-net with a resistor and then
poke a signal generator in the OUTPUT connector. Scope across the resistor and go. Seems strange to say, but today a lot more people have signal generators than grid-dip meters!! :-)

The PLATE choke has been examined (single layer) and at these levels a shorted turn would be
pretty obvious pretty quickly! I, or someone else suggested the decoupling cap, and it was reported as ok. I don't think that would kill it to this state if open. A short would be easy
to spot!

It's really a stumper...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tjb813@... wrote:
> Assuming, as you state, that everything checks-out, I would remove the tubes, connect a 3k or something close from one anode connector to ground and use a dip meter to see if the final tank resonates somewhere near the correct posiitons of the capacitors. This is not an exact value, but it should result in resonable readings.
>
> Is it possible the plate choke is damaged (shorted turns) or the bypass cap at the HV connection to the plate choke is open?
>
> Either of these will cause "tuning" issues at the anode circuit.
>
> Tim
> KD8CN
>
>

20808. 7-Line End Caps

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-08 12:54:36 UTC
From: <mikek4qu@...>
Topic: 20808 Message: 20808

I have made a batch of 7-Line End Caps for Dayton (see pics in Photo Section).
These are machined ABS plastic and will not crack like the originals.
Stop by space 3421 in the Fleamarket and have a look.

73, Mike K4QU

[Non-text portions of this message have been removed]

20809. Re: [DrakeRadio] 7-Line End Caps

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-08 12:58:47 UTC
From: geoffrey mendelson
Topic: 20808 Message: 20809

On 5/8/2014 3:54 PM, mikek4qu@... wrote:
>
> I have made a batch of 7-Line End Caps for Dayton (see pics in Photo
> Section).
> These are machined ABS plastic and will not crack like the originals.
> Stop by space 3421 in the Fleamarket and have a look.
>
Will you ship? I'm about 8,000 miles from Dayton.

73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20810. Re: [DrakeRadio] 7-Line End Caps

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-08 13:21:34 UTC
From: <mikek4qu@...>
Topic: 20808 Message: 20810

Hi Geoff, Please contact me directly:
mikek4qu@...

Thanks and 73, Mike K4QU

[Non-text portions of this message have been removed]

20811. Setting plate bias current

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-08 23:25:13 UTC
From: Brian and Beth Miller
Topic: 20811 Message: 20811

There has been a lot of traffic on this subject lately and I should have been paying more attention. But all the fuss about bias current got me to question the setting on my TX4-B, so since I had the covers off to align the transmitter I thought I would check the plate bias. This is what I did:

-Using a precision multimeter I measured the resistance of R36. The color code indicated 3.3 ohms, I measured 3.77 ohms

-Based on the schematic, I conclude that virtually all the plate current flows through R36 because its resistance is so much smaller than the circuitry which shunts it: primarily R38 and the meter.

-I calculated 70ma * 3.77ohms = 0.264V.

-I placed the multimeter probes across R36 and tweaked the bias adjust for 0.264V across R36.

Is this correct? I ask primarily because the meter indicated over 100ma when I was finished with this procedure, so I'm a little suspicious that I messed up.

Brian, NI7P

[Non-text portions of this message have been removed]

20812. Re: [DrakeRadio] Setting plate bias current

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 00:13:56 UTC
From: David Nichols
Topic: 20811 Message: 20812

It all looks good to me, I just got my T-4XB in the mail today so I may be the last person you should listen to. If you are good with your measurements to this point you now need to change the resistor on the meter switch to get your meter to show the proper setting. Thats R38 on my print and is mounted on the slide switch up front and on top.
David - KX7C

From: Brian and Beth Miller <bmiller297@...>
To: drakeradio@yahoogroups.com
Sent: Thursday, May 8, 2014 4:25 PM
Subject: [DrakeRadio] Setting plate bias current

There has been a lot of traffic on this subject lately and I should have been paying more attention. But all the fuss about bias current got me to question the setting on my TX4-B, so since I had the covers off to align the transmitter I thought I would check the plate bias. This is what I did:

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Brian, NI7P

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20813. Re: [DrakeRadio] Setting plate bias current

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 00:40:11 UTC
From: n1ohn@yahoo.com
Topic: 20811 Message: 20813

Hello Dave

Well I'm just learning this radio to so I will put this out and I'm sure the pro will chime in and say im off lol .... first if your radio meeter is working correctly you should adjust your bias to the line this is the line on top of the scale in the middle of .0 and .1 turn the rf gain pot fully ccw and place the radio in tune to properly adjust the bias.

Under the radio were the two 6jb6 tubes are you will see a copper flat bus Barr with your DVM you should get -70vdc give or take. If you do and your needle is way off then we can move on to the next test.

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20814. R-4C for sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 00:43:57 UTC
From: Bill Houghton
Topic: 20814 Message: 20814

Hi All,

After a lot of thinking, I have decided to sell my later serial number & nice R-4C, $250 + shipping. Contacted me off list if interested.

73,

Bill, WA6NEQ

20815. Re: [DrakeRadio] Setting plate bias current

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 01:41:17 UTC
From: Garey Barrell
Topic: 20811 Message: 20815

Brian -

You got it right so far! Once you're satisfied that the current is correct, which it appears to
be according to your measurements, you need to change R38, the resistor on the slide switch behind the meter 'button' between the TUNE and LOAD controls. That is a select at test resistor
and pick the closest one to read 70 mA on the panel meter, right side up.

R36 is not really a 'shunt' in the common use of the term. It's merely a resistor in series with
the Cathode line of the PA. The meter and R38 are a DC voltmeter that measures the voltage drop
across R36. What has happened to your transmitter happens to a lot of them, R36 has aged up in
value, increasing the voltage drop across it for a given current. This makes the panel meter
read 'high' as you discovered, which causes the operator to increase the BIAS beyond the design
goal, changing the operating point of the PA, (toward Class C,) and out of its most linear region.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Brian and Beth Miller wrote:
> There has been a lot of traffic on this subject lately and I should have
> been paying more attention. But all the fuss about bias current got me to
> question the setting on my TX4-B, so since I had the covers off to align the
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> -Using a precision multimeter I measured the resistance of R36. The color
> code indicated 3.3 ohms, I measured 3.77 ohms
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> -Based on the schematic, I conclude that virtually all the plate current
> flows through R36 because its resistance is so much smaller than the
> circuitry which shunts it: primarily R38 and the meter.
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>
>
> -I calculated 70ma * 3.77ohms = 0.264V.
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> -I placed the multimeter probes across R36 and tweaked the bias adjust for
> 0.264V across R36.
>
>
>
> Is this correct? I ask primarily because the meter indicated over 100ma when
> I was finished with this procedure, so I'm a little suspicious that I messed
> up.
>

20816. Re: [DrakeRadio] R-4C for sale - sale pending

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 01:48:42 UTC
From: Bill Houghton
Topic: 20814 Message: 20816

My thanks to everyone who responded. I'm surprised at the number of responses in such a short time. The R-4C is sold pending funds.

73,

Bill, WA6NEQ

On Thu, 5/8/14, Bill Houghton <rdrbill@...> wrote:

Subject: [DrakeRadio] R-4C for sale
To: "Drake Yahoo" <DrakeRadio@yahoogroups.com>
Date: Thursday, May 8, 2014, 5:43 PM

Hi All,

After a lot of thinking, I have decided to sell my later
serial number & nice R-4C, $250 + shipping. Contacted me off
list if interested.

73,

Bill, WA6NEQ

20817. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 01:53:49 UTC
From: <aei_01033@...>
Topic: 20448 Message: 20817

Very good. Makes sense.

I think I may have a good spare around in the shack somewhere.

I'll keep an eye out for another as well.

Tnx for your assistance as always.

73
Bill
N1CQ

[Non-text portions of this message have been removed]

20818. Re: [DrakeRadio] Setting plate bias current

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 04:05:53 UTC
From: Richard Knoppow
Topic: 20811 Message: 20818

----- Original Message -----
From: "Brian and Beth Miller" <bmiller297@...>
To: <drakeradio@yahoogroups.com>
Sent: Thursday, May 08, 2014 4:25 PM
Subject: [DrakeRadio] Setting plate bias current

> There has been a lot of traffic on this subject lately and
> I should have
> been paying more attention. But all the fuss about bias
> current got me to
> question the setting on my TX4-B, so since I had the
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> transmitter I thought I would check the plate bias. This
> is what I did:
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> flows through R36 because its resistance is so much
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> Is this correct? I ask primarily because the meter
> indicated over 100ma when
> I was finished with this procedure, so I'm a little
> suspicious that I messed

> up.
>
>
>
> Brian, NI7P
>
As Garrey mentioned R-36 changes value with time. Also, if memory serves me, two different values, 2.7 ohms and 3.3 ohms were used because two different meters were used. I am going by memory but I believe one meter is calibrated to 400 ma and the other to 500 ma, the higher value resistor goes with the higher scale meter.
The best place to measure the plate current, actually cathode current, is at the 15 ohm resistors at the cathodes of the tubes. Make sure these are really 15 ohms because they also tend to drift with age. If they are not 15 ohms replace them. Garrey recommends metal oxide film resistors. When they are the right value each tube should measure 0.525 volts across the resistor. That, of course, is 35ma. They may not be the same due to differences in the tubes. You can measure the voltage on each and add the equivalent current to get the total. You can set the bias to get 35 ma per tube. The series current sensing resistor at the meter i.e. the 3.3 or 2.7 ohm resistor should be the right value. The meter trimming resistor, R-38, should be adjusted so that the meter reads exactly 70 ma. If modern resistors are used you will probably never have to do it again. Getting the current meter calibrated is very important because the circuit is designed to have minimum distortion at the specified idling current. Operating at the wrong bias will increase distortion and may affect tube life.
One more thing, a cooling fan will extend the tube life. Many of us have used small muffin type fans fixed with some weather stipping or small rubber feet and just set on top of the transformer right over the finals. The fan should blow OUT so that cool air is brought in around the tubes. Blowing IN blows hot air over the chassis. I use 220 volt fan on the 115V line. It runs slowly enough so that its silent but still draws enough air through to keep everything cool.
The T4XB is a very satisfactory little transmitter. It justifies some work because it has very good performance.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20819. My TR4 saga continues....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 20:05:46 UTC
From: prosolar@...
Topic: 20819 Message: 20819

Guys,

I had to do it. I took a me day off work. All those 12 hr shifts were slowly killing me.

So, spent some quality time with the TR4 that has been giving me issues.

Lacking a different 12AV6, I pulled the old one back in. No joy. Walked away and mowed the grass. Came back, and whoa! Sidetone and the relays click in in the "X" position.

Audio still seems low. I have to run the volume control at full bore for normal listening volume. I have 22 vpp on the input to the 6AQ6. Different tube, same problem.

The VOX snaps on and off with the volume control level. The anti-vox helps, but sill not right.

Can't hear squat on 20 meters except for loud stations. (see below)

Sometimes putting a finger or two around the 12AV6 causes a noticeable squeal.

And speaking of which, depending on the position of the VOX gain control, I can hear a high pitched squeal in the receiver's audio. Find the correct spot on the VOX gain control and the squeal goes bye-bye.

80 meter RF output is low, about 50ish watts.

Just for grins, I didn't fire up the big guns, but used a elecraft signal generator and tweaked the IF and 80/20 mixer transformers. Before I couldn't hear a 1 uv signal, but now i can. It was quick and dirty.

The chassis is in bad shape, complete with green stuff growing on it. Front panel is okay, so I don't know. I do know I can't save 'em all and this one is at the border of becoming a parts pig.

And one last item...

How in the hell do you get that red knob that slides the calibration plastic out without taking the whole front panel apart?

Mike, wb8vge

the Heathkitshop.com

[Non-text portions of this message have been removed]

20820. Re: [DrakeRadio] My TR4 saga continues....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 20:40:31 UTC
From: Garey Barrell
Topic: 20819 Message: 20820

Mike --

See below...

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... [DrakeRadio] wrote:
> Lacking a different 12AV6, I pulled the old one back in. No joy. Walked away and mowed the grass. Came back, and whoa! Sidetone and the relays click in in the "X" position.

Best kind of problem there is!!! :-)
>
>
> Audio still seems low. I have to run the volume control at full bore for normal listening volume. I have 22 vpp on the input to the 6AQ6. Different tube, same problem.

The TR-4 is known for low audio, but not that low. Drake added a single transistor preamp in
the "C". 22 V p-p is enough to drive the 6AQ5 into clipping. The Grid is only biased about 10V above ground! Have to look at the obvious. Bad speaker or cable? C135 is the obvious next
suspect. Then C136, C142 leaky. Rest of V17 voltages ok?? We seem to be having a rash of output transformer failures lately......
>
>
> The VOX snaps on and off with the volume control level. The anti-vox helps, but sill not right.

Be sure ANTI-VOX isn't turned too high........ Cracked control element??

>
>
> Can't hear squat on 20 meters except for loud stations. (see below)

Usual spots, #12 bulb, pins, socket, plus shorted turn in INPUT RF Choke (nearby lightning)
>
>
> Sometimes putting a finger or two around the 12AV6 causes a noticeable squeal.

So don't put your fingers around the 12AV6!
>
>

> And speaking of which, depending on the position of the VOX gain control, I can hear a high pitched squeal in the receiver's audio. Find the correct spot on the VOX gain control and the squeal goes bye-bye.

Audio feedback, perhaps related to leaky C142
>
>
> 80 meter RF output is low, about 50ish watts.

Check LOAD cap and associated switch.
>
>
> Just for grins, I didn't fire up the big guns, but used a elecraft signal generator and tweaked the IF and 80/20 mixer transformers. Before I couldn't hear a 1 uv signal, but now i can. It was quick and dirty.

OK.
>
>
>
> The chassis is in bad shape, complete with green stuff growing on it. Front panel is okay, so I don't know. I do know I can't save 'em all and this one is at the border of becoming a parts pig.

Only as a last resort!
>
>
> And one last item...
>
>
> How in the hell do you get that red knob that slides the calibration plastic out without taking the whole front panel apart?

You don't. At least not without bending the dress panel.

20821. Re: [DrakeRadio] My TR4 saga continues....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 23:19:40 UTC
From: Steve Wedge
Topic: 20819 Message: 20821

I take the front panel apart. It's not that hard, and you can get everything a lot cleaner that way!

When the noogie won't pull out, I use a soldering iron on the back and melt it until it yields.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: prosolar@... [DrakeRadio]
Sent: Friday, May 09, 2014 4:05 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] My TR4 saga continues....

Guys,

I had to do it. I took a me day off work. All those 12 hr shifts were slowly killing me.

So, spent some quality time with the TR4 that has been giving me issues.

Lacking a different 12AV6, I pulled the old one back in. No joy. Walked away and mowed the grass. Came back, and whoa! Sidetone and the relays click in in the "X" position.

Audio still seems low. I have to run the volume control at full bore for normal listening volume. I have 22 vpp on the input to the 6AQ6. Different tube, same problem.

The VOX snaps on and off with the volume control level. The anti-vox helps, but sill not right.

Can't hear squat on 20 meters except for loud stations. (see below)

Sometimes putting a finger or two around the 12AV6 causes a noticeable squeal.

And speaking of which, depending on the position of the VOX gain control, I can hear a high pitched squeal in the receiver's audio. Find the correct spot on the VOX gain control and the squeal goes bye-bye.

80 meter RF output is low, about 50ish watts.

Just for grins, I didn't fire up the big guns, but used a elecraft signal generator and tweaked the IF and 80/20 mixer transformers. Before I couldn't hear a 1 uv signal, but now i can. It was quick and dirty.

The chassis is in bad shape, complete with green stuff growing on it. Front panel is okay, so I don't know. I do know I can't save 'em all and this one is at the border of becoming a parts pig.

And one last item...

How in the hell do you get that red knob that slides the calibration plastic out without taking the whole front panel apart?

Mike, wb8vge

the Heathkitshop.com

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20822. WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 23:29:38 UTC
From: L L bahr
Topic: 20819 Message: 20822

I'm putting together a station for my club (CARS). We bought a R-4C and a T-4C but don't have an AC-4 Power S upply. I'd like to find one to rebuild for the club. If you have a double slot AC-4 you will part with, contact me with details. Since we are going to rebuild it, I don't care if it presently works or not as long as the transformer and multi-wire power cable and plug are in decent shape.
Thanks,
Lee, w0vt
trustee of w5drc

[Non-text portions of this message have been removed]

20823. OK, Garey, what's happened now on Yahoo?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-09 23:43:06 UTC
From: Al Parker
Topic: 20819 Message: 20823

Hi Garey,
It used to be, up until a day or 3 ago, that when someone posted to the list, and you picked "reply to all", you got his email addr as well as the lists, and the poster got 2 replies.
Not so now, you can't see the poster's addr., it only goes to the group.
If you view "message source", you can dig out his addr., but it's not very obvious, and the whole source file is pretty huge, lotsa html coding.
It's not that way on the Hallicrafters yahoo list (yet).
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

20824. Subbing A 6AH6 For The 6HS6 In The 4b Transmitter.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 02:21:14 UTC
From: Joe - W7RKN
Topic: 20824 Message: 20824

What modifications are needed in the transmitter? Does the tube still produce the same amount of power? The 6AH6 is quite a bit cheaper than the 6HS6 so I had to ask! (Being the cheapskate that I am! LOL.)

Joe - W7RKN

20825. Re: [DrakeRadio] Subbing A 6AH6 For The 6HS6 In The 4b Transmitter.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 02:33:34 UTC
From: Garey Barrell
Topic: 20824 Message: 20825

Joe -

It's a 'drop-in' replacement. I would recommend sticking with the 6HS6 in the 1st Mixer, but
it's fine for the PreMixer.

Personally, I'll stick with the HS6, yeah, $15 is more than the garden variety tubes, but you're
not likely to need another one, IF you need one now. There may be a reason Drake engineers chose it over the readily available 6AH6. Maybe not.....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Joe - W7RKN w7rkn.7@... [DrakeRadio] wrote:
> What modifications are needed in the transmitter? Does the tube still
> produce the same amount of power? The 6AH6 is quite a bit cheaper than the
> 6HS6 so I had to ask! (Being the cheapskate that I am! LOL.)
>
> Joe - W7RKN
>

20826. Re: [DrakeRadio] OK, Garey, what's happened now on Yahoo?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 02:38:40 UTC
From: Garey Barrell
Topic: 20819 Message: 20826

Al -

No telling..... I just looked at the settings for DrakeRadio, and it was set to 'List Only'.
It used to show the sender's address in the header of the received message, but now you can't
just copy the sender ONLY.

I swear they're worse than engineers, they just can't stop fiddling with it!!! :-)

That said, I actually kinda like it. A lot of good stuff is lost by direct reply, so this just
makes it a little harder to cut the list out!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Al Parker anchor@... [DrakeRadio] wrote:
> Hi Garey,
> It used to be, up until a day or 3 ago, that when someone posted to the
> list, and you picked "reply to all", you got his email addr as well as
> the lists, and the poster got 2 replies.
> Not so now, you can't see the poster's addr., it only goes to the group.
> If you view "message source", you can dig out his addr., but it's not
> very obvious, and the whole source file is pretty huge, lotsa html coding.
> It's not that way on the Hallicrafters yahoo list (yet).
>

20827. Re: [DrakeRadio] Subbing A 6AH6 For The 6HS6 In The 4b Transmitter.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 02:46:23 UTC
From: Joe - W7RKN
Topic: 20824 Message: 20827

I don't really need it (them)..I just want to 'shelf' a good set of tubes
for my b's....just in case.......

Thanks!

BTW..Frank is asking $40 each for the HS6's and only $5 for the AH6.....

Joe
----- Original Message -----
From: "Garey Barrell k4oah@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Subbing A 6AH6 For The 6HS6 In The 4b Transmitter.

> Joe -
>
> It's a 'drop-in' replacement. I would recommend sticking with the 6HS6 in
> the 1st Mixer, but
> it's fine for the PreMixer.
>
> Personally, I'll stick with the HS6, yeah, $15 is more than the garden
> variety tubes, but you're
> not likely to need another one, IF you need one now. There may be a
> reason Drake engineers
> chose it over the readily available 6AH6. Maybe not........

20828. T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 03:31:20 UTC
From: dj_coffman@...
Topic: 20828 Message: 20828

With a fresh set of 6JB6 tubes, properly neautrilized and tuned into a dummy load, where should one expect the plate control to be at full output? On 10M I consistently see the plate control with a dip just below the 10 setting. On a lower band, such as 40M, my plate setting is close to 7 3/4. Is this normal; it seems as if I'm running at the end of the plate capacitors value? 73, Doug - N9XTF

[Non-text portions of this message have been removed]

20829. Re: [DrakeRadio] T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 04:28:14 UTC
From: Richard Knoppow
Topic: 20828 Message: 20829

----- Original Message -----
From: "dj_coffman@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 09, 2014 8:31 PM
Subject: [DrakeRadio] T-4XC Plate control settings

> With a fresh set of 6JB6 tubes, properly neautrilized and
> tuned into a dummy load, where should one expect the plate
> control to be at full output? On 10M I consistently see
> the plate control with a dip just below the 10 setting. On
> a lower band, such as 40M, my plate setting is close to 7
> 3/4. Is this normal; it seems as if I'm running at the end
> of the plate capacitors value? 73, Doug - N9XTF
>
That's just about what I get. When the loading is at
minimum, that is the load control is max CCW the plate
tuning will dip almost at maximum CW. As the loading is
increased to bring the power up the plate tuning will become
lower. At maximum power output the tuning is near the limit
but within it. As the loading is changed at any frequency
the resonance is pulled slightly, this is a characteristic
of a parallel tuned circuit. Even though the pi network
doesn't look like a parallel tuned tank it is.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20830. Re: [DrakeRadio] T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 04:32:04 UTC
From: Richard Knoppow
Topic: 20828 Message: 20830

----- Original Message -----
From: "'Richard Knoppow' 1oldlens1@...
[DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>; <dj_coffman@...>
Sent: Friday, May 09, 2014 9:28 PM
Subject: Re: [DrakeRadio] T-4XC Plate control settings

Actually, I have a T4XB but I think they are the same as
far as the plate tank and pi net.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

20831. Re: [DrakeRadio] T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 04:46:35 UTC
From: Doug Coffman
Topic: 20828 Message: 20831

Richard,

Thanks,

I wanted to ensure something wasn't amiss with my alignment, PA tubes or some other component.

Doug

Sent from my iPhone

> On May 10, 2014, at 0:32, "'Richard Knoppow' 1oldlens1@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
>
> ----- Original Message -----
> From: "'Richard Knoppow' 1oldlens1@...
> [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: <DrakeRadio@yahoogroups.com>; <dj_coffman@yahoo.com>
> Sent: Friday, May 09, 2014 9:28 PM
> Subject: Re: [DrakeRadio] T-4XC Plate control settings
>
> Actually, I have a T4XB but I think they are the same as
> far as the plate tank and pi net.
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
>

[Non-text portions of this message have been removed]

20832. Re: [DrakeRadio] T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 12:18:38 UTC
From: Steve Wedge
Topic: 20828 Message: 20832

If the dip it right *at* the stop, it's usually a sign that either the finals are a different brand than the usual RCA or Sylvania or the neutralization is off. If it's *almost* at full CW, it's pretty normal.

Carry on...

Steve Wedge, W1ES/4

Sent from my iPad: please don't laugh too hard at any autocorrect grammar changes :)

> On May 10, 2014, at 12:46 AM, "Doug Coffman dj_coffman@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Richard,
>
> Thanks,
>
> I wanted to ensure something wasn't amiss with my alignment, PA tubes or some other component.
>
> Doug
>
> Sent from my iPhone
>
> > On May 10, 2014, at 0:32, "'Richard Knoppow' 1oldlens1@ix.netcom.com [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
> >
> >
> > ----- Original Message -----
> > From: "'Richard Knoppow' 1oldlens1@ix.netcom.com
> > [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> > To: <DrakeRadio@yahoogroups.com>; <dj_coffman@...>
> > Sent: Friday, May 09, 2014 9:28 PM
> > Subject: Re: [DrakeRadio] T-4XC Plate control settings
> >
> > Actually, I have a T4XB but I think they are the same as
> > far as the plate tank and pi net.
> >
> > --
> > Richard Knoppow
> > Los Angeles
> > WB6KBL
> > dickburk@...
> >
> >
>

> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20833. Re: [DrakeRadio] T-4XC Plate control settings

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 13:14:06 UTC
From: Garey Barrell
Topic: 20828 Message: 20833

Doug -

As has been said, 'near' the top is ok. The RULE for resonance is, as long as the Plate current
goes 'up' on BOTH sides of resonance, it's 'in range'! Same for tuning for a peak. As long as
the reading drops OFF on either side of a peak, it's ok. If only on one side, you've run into
the limit of the adjustment, which is probably NOT the point you want......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

dj_coffman@... [DrakeRadio] wrote:
> With a fresh set of 6JB6 tubes, properly neautrilized and tuned into a dummy load, where should one expect the plate control to be at full output? On 10M I consistently see the plate control with a dip just below the 10 setting. On a lower band, such as 40M, my plate setting is close to 7 3/4. Is this normal; it seems as if I'm running at the end of the plate capacitors value? 73, Doug - N9XTF
>
>

20834. Information!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 15:02:22 UTC
From: Garey Barrell
Topic: 20834 Message: 20834

A list member sent this link to me for 'Triode Electronics' and thought others might be interested in it.

I am/was familiar with it, and there is a wealth of tube based information scattered around.
Granted, much of it is audio related, but since we owe our tube supply, (at least in part to
them,) it wouldn't hurt to be familiar with what they are doing!

<http://www.triodeelectronics.com/index.html>

An excellent site!

--
73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

20835. Drake Forum at Hamvention

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 16:42:16 UTC
From: Evan Rolek
Topic: 20834 Message: 20835

Fellow Drake Enthusiasts,

There will be a Drake Forum at Hamvention again this year. It will be 10:30 to 11:30 local time, Room 2, on Saturday. Please consider yourself invited. The first 125 attendees will receive a free, Drake logo pen. At the end of the Forum, there will be some free door prizes including Drake memorabilia, replacement parts, etc. Hope to see you there!

73,

Evan, K9SQG
For the Drake Forum Committee

[Non-text portions of this message have been removed]

20836. Re: Information!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 16:57:34 UTC
From: toptyp19@...
Topic: 20834 Message: 20836

Boy Garey, does that bring back fond memories!
Triode Electronics purchased the building and entire inventory of
the old Radio-TV Lab in Chicago and liquidated the "stuff" via the internet
a few years ago. See this site: http://www.yelp.com/biz/triode-electronics-chicago
http://www.yelp.com/biz/triode-electronics-chicago
I used to thread my way through literally piles and piles of transmitters, receivers, VFO's you name it! Can't remember for the life of me the former owner's name but he was quite a character! I bought lots of stuff from the store itself and also from the online auctions.
Yeah. Quite an experience for a young ham 50 years ago! I see Triode still operates out of the old Irving Park Road address of the Radio-TV Lab. I'll have to wander up there one day just for fun!

73, Joe-WA9LAE

[Non-text portions of this message have been removed]

20837. Re: [DrakeRadio] Drake Forum at Hamvention

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 17:16:57 UTC
From: Dino Papas
Topic: 20834 Message: 20837

Hey Evan?.sure wish I could be there next week but XYL?s mom is still with us and that takes us out of the running?didn?t want to leave my better half alone without backup.

So, hopefully we?ll be there in 2015!

Have a great time!

73 - Dino

On May102014, at 1242 PM, Evan Rolek k9sqg@arrl.net [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

>
>
> Fellow Drake Enthusiasts,
>
> There will be a Drake Forum at Hamvention again this year. It will be 10:30 to 11:30 local time, Room 2, on Saturday. Please consider yourself invited. The first 125 attendees will receive a free, Drake logo pen. At the end of the Forum, there will be some free door prizes including Drake memorabilia, replacement parts, etc. Hope to see you there!
>
> 73,
>
> Evan, K9SQG
> For the Drake Forum Committee

[Non-text portions of this message have been removed]

20838. Re: [DrakeRadio] Re: Information!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 17:37:50 UTC
From: GRANT YOUNGMAN
Topic: 20834 Message: 20838

I was in Radio-RV Labs many times when I lived in Chicago in the early 80?s. I think the owner?s name was George, but I don?t recall his last name.

It was one of those great places that you just don?t find around much anymore.

Grant NQ5T

On May 10, 2014, at 11:57 AM, toptyp19@mindspring.com [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Boy Garey, does that bring back fond memories!
> Triode Electronics purchased the building and entire inventory of
> the old Radio-TV Lab in Chicago and liquidated the "stuff" via the internet
> a few years ago. See this site: http://www.yelp.com/biz/triode-electronics-chicagohttp://www.yelp.com/biz/triode-electronics-chicago
> I used to thread my way through literally piles and piles of transmitters, receivers, VFO's
> you name it! Can't remember for the life of me the former owner's name but he was quite
> a character! I bought lots of stuff from the store itself and also from the online auctions.
> Yeah. Quite an experience for a young ham 50 years ago! I see Triode still operates out
> of the old Irving Park Road address of the Radio-TV Lab. I'll have to wander up there one
> day just for fun!
>
>

[Non-text portions of this message have been removed]

20839. Re: [DrakeRadio] Re: Information!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 18:15:41 UTC
From: toptyp19@...
Topic: 20834 Message: 20839

Hi Grant-

You're right. Once I knew his first name I was able to find the obituary.
His full name was George Sopocko, callsign: WA9JEZ. He passed away in 2009.

73, Joe.

[Non-text portions of this message have been removed]

20840. tr-7 service manual

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 18:30:19 UTC
From: geoffrey mendelson
Topic: 20840 Message: 20840

I've located a scanned copy of the TR-7 service manual online. It's really helpful, except that the photographs are all black blurs.

Does anyone know a source for one that has readable photographs.

eBook preferred

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20841. Re: [DrakeRadio] Re: Information!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 19:26:00 UTC
From: Garey Barrell
Topic: 20834 Message: 20841

Joe -

I did not know that!! I spent a few days wandering through there with George (?) some years ago. I got to ONE of the 'backyard' sales!

You have to be crazy to do what WE do, much less what HE did!!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

toptyp19@... [DrakeRadio] wrote:
> Boy Garey, does that bring back fond memories!
> Triode Electronics purchased the building and entire inventory of
> the old Radio-TV Lab in Chicago and liquidated the "stuff" via the internet
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http://www.yelp.com/biz/triode-electronics-chicago
> I used to thread my way through literally piles and piles of transmitters, receivers,
VFO's
> you name it! Can't remember for the life of me the former owner's name but he was quite
> a character! I bought lots of stuff from the store itself and also from the online
auctions.
> Yeah. Quite an experience for a young ham 50 years ago! I see Triode still operates out
> of the old Irving Park Road address of the Radio-TV Lab. I'll have to wander up there one
> day just for fun!
>
> 73, Joe-WA9LAE
>
>

20842. tr-7 tuning dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 19:37:18 UTC
From: geoffrey mendelson
Topic: 20842 Message: 20842

In anticipation of opening up my TR-7 to fix the stuck tuning dial, I am hoping that the dial itself is stuck and not the PTO. I've repaired the stuck dials of an SPR-4, which was very similar to the 4 line dials. However I can't find anything on them, except a photo of a PTO assembly, complete with dial still attached sitting on a table.

From the looks of things, I think I will be able to remove the DR-7 and tilt forward the front panel exposing the dials. Do they get stuck like 4 line dials (with the application of oil)? Am I in for something far worse?

Do they really need to be calibrated? I understand that one can calibrate the quite accurately, but if you are only going to use a DR-7 do they need any real calibration at all (beyond reading the ends of the bands in the right places)?

Note that I have nothing better than the built in crystal calibrator and DR-7 to calibrate them to. I don't have a signal generator and I am out of range of WWV, CHU, and the EU time signal stations.

TIA.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20843. TR-7 AM filter workaround questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 19:51:50 UTC
From: geoffrey mendelson
Topic: 20843 Message: 20843

More TR-7 questions before I go to bed. :-)

I want to use the radio for AM reception. Once I get the tuning dial working, I am going to modify the filter board to add a "poor man's AM filter" and a 300Hz CW filter I have.

It seems that the standard is to put the CW filter in the A slot and the AM filter work around in the C slot. This is counter intuitive to me, AM filter in A slot, CW filter in C slot. Would this cause a problem for me? It probably will cause one for the next owner, but I am not concerned about that now.

The other question is that I have seen two different mods to replace the AM filter. The first is just a resistor, ranging in value from 150 ohms to 450 ohms. The second is a pad (http://www.alg.myzen.co.uk/radio/tr7/mods.htm#5). Any suggestions as to which is best?

TIA and 73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20844. Re: My TR4 saga continues....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 20:04:30 UTC
From: prosolar@...
Topic: 20819 Message: 20844

steve and the gang

I've done it before, but it's been a while. I was wondering out loud if there was a simpler method than pulling all the knobs and de-mounting the dress panel. I'm getting lazy in my old age.

Still haven't got all the bugs out yet, but I had it sitting on 14.300 most of the evening and I heard stuff the net control didn't (most of that is propagation I'd bet!)

Called in with no traffic and got a good strong report.

It's misty out so I'll spend sometime with it this afternoon

mike, wb8vge

the heathkit shop.com

[Non-text portions of this message have been removed]

20845. Re: [DrakeRadio] Drake Forum at Hamvention

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 21:10:46 UTC
From: Steve Wedge
Topic: 20834 Message: 20845

Here’s hoping all y’all at Dayton this year have a great time!

I’m going to plan on getting there next year.

Steve Wedge, W1ES/4

"I can't complain, but sometimes I still do."
- Joe Walsh

If the above message appears, it came from Steve's Son of Laptop!

From: mailto:DrakeRadio@yahoogroups.com
Sent: Saturday, May 10, 2014 12:42 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Drake Forum at Hamvention

Fellow Drake Enthusiasts,

There will be a Drake Forum at Hamvention again this year. It will be 10:30 to 11:30 local time, Room 2, on Saturday. Please consider yourself invited. The first 125 attendees will receive a free, Drake logo pen. At the end of the Forum, there will be some free door prizes including Drake memorabilia, replacement parts, etc. Hope to see you there!

73,

Evan, K9SQG
For the Drake Forum Committee

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20846. AW: [DrakeRadio] TR-7 AM filter workaround questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 21:16:03 UTC
From: Dieter Horst
Topic: 20846 Message: 20846

Hi Geoff,
You can put the filters in any slot you want. Only the 2.3 kHz filter's position must not be changed as it is used for TX in SSB.
The resistor 'AM filter' works quite nicely. Never heard about the other method.
73s Dieter DL5RDO

-------- Ursprüngliche Nachricht --------
Von: "geoffrey mendelson geoffreymendelson@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Datum: 10.05.2014 21:51 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: [DrakeRadio] TR-7 AM filter workaround questions

More TR-7 questions before I go to bed. :-)

I want to use the radio for AM reception. Once I get the tuning dial working, I am going to modify the filter board to add a "poor man's AM filter" and a 300Hz CW filter I have.

It seems that the standard is to put the CW filter in the A slot and the AM filter work around in the C slot. This is counter intuitive to me, AM filter in A slot, CW filter in C slot. Would this cause a problem for me? It probably will cause one for the next owner, but I am not concerned about that now.

The other question is that I have seen two different mods to replace the AM filter. The first is just a resistor, ranging in value from 150 ohms to 450 ohms. The second is a pad (http://www.alg.myzen.co.uk/radio/tr7/mods.htm#5). Any suggestions as to which is best?

TIA and 73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20847. AW: [DrakeRadio] tr-7 tuning dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 21:29:16 UTC
From: Dieter Horst
Topic: 20847 Message: 20847

Me again...

You do not need more than the DR7 to calibrate it. In fact I hardly ever look on the dials. But it would be a pity if they were totally out of place. There is not much black magic in the PTO. You will see what it is all about when you dismantle it. You may take a few pictures in case you are unsure when putting it back together.
BTW if you need replacement for this brownish doughnot that usually gets stiff over the years. I have a piece of hose that fits just fine. Let me know if you need a piece.
73s Dieter DL5RDO

-------- Ursprüngliche Nachricht --------
Von: "geoffrey mendelson geoffreymendelson@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Datum: 10.05.2014 21:37 (GMT+01:00)
An: DrakeRadio@yahoogroups.com
Betreff: [DrakeRadio] tr-7 tuning dial

In anticipation of opening up my TR-7 to fix the stuck tuning dial, I am hoping that the dial itself is stuck and not the PTO. I've repaired the stuck dials of an SPR-4, which was very similar to the 4 line dials. However I can't find anything on them, except a photo of a PTO assembly, complete with dial still attached sitting on a table.

From the looks of things, I think I will be able to remove the DR-7 and tilt forward the front panel exposing the dials. Do they get stuck like 4 line dials (with the application of oil)? Am I in for something far worse?

Do they really need to be calibrated? I understand that one can calibrate the quite accurately, but if you are only going to use a DR-7 do they need any real calibration at all (beyond reading the ends of the bands in the right places)?

Note that I have nothing better than the built in crystal calibrator and DR-7 to calibrate them to. I don't have a signal generator and I am out of range of WWV, CHU, and the EU time signal stations.

TIA.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20848. the TR4---the plot thickens

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 21:51:24 UTC
From: prosolar@...
Topic: 20848 Message: 20848

Gang,

making headway.

Found one leaky .01 cap in the audio circuit. Measured a few megohms dc.

Replaced it and it's brother.

Got plenty of audio now, running about '9 o'clock for room filling audio.

still having VOX issues. Either won't key or clicks on and off.

still got a whistle now and then. Pulling the 12AX7 makes the whistle go, so I'll poke around there.

Doing 120ish watts on all bands==== except for ten

Now, that band is another problem.

It's dead. I can't hear the calibrator nor my signal generator with 33mv being pushed in.

Yes, the crystal oscillator is running.

yes, I have transmit, but it's on 30.xxx

Hummm....

So question of the day

Drake wants you to measure the negative voltage on test point one, and adjust the crystal oscillator coils for max voltage.

now, when i do that, the oscillator stops. I find that about MINUS 3-4 volts seems to work fine. I can adjust the voltage to almost 7 volts but then the oscillator stops.

This radio is truly being a pain in the butt.

Mike, wb8vge

The heahtkitshop.com

[Non-text portions of this message have been removed]

20849. Re: [DrakeRadio] TR-7 AM filter workaround questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 22:18:09 UTC
From: Jim Shorney
Topic: 20843 Message: 20849

You can put any filter in any position your little heart desires, except the "default" 2.4 KHz which needs to stay where it is.

As for which resistor method is best, I don't know. I think most people just use the single resistor.

73

-Jim
NU0C

On Sat, 10 May 2014 22:51:50 +0300, geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:

>More TR-7 questions before I go to bed. :-)
>
>I want to use the radio for AM reception. Once I get the tuning dial
>working, I am going to modify the filter board to add a "poor man's AM
>filter" and a 300Hz CW filter I have.
>
>It seems that the standard is to put the CW filter in the A slot and the
>AM filter work around in the C slot. This is counter intuitive to me, AM
>filter in A slot, CW filter in C slot. Would this cause a problem for
>me? It probably will cause one for the next owner, but I am not
>concerned about that now.
>
>The other question is that I have seen two different mods to replace
>the AM filter. The first is just a resistor, ranging in value from 150
>ohms to 450 ohms. The second is a pad
>(http://www.alg.myzen.co.uk/radio/tr7/mods.htm#5). Any suggestions as to
>which is best?
>
>TIA and 73.
>
>Geoff.
>
>--
>Geoffrey S. Mendelson 4X1GM/N3OWJ
>Jerusalem Israel.
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

20850. Re: Drake Forum at Hamvention

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 22:23:35 UTC
From: mikek4qu@...
Topic: 20834 Message: 20850

Evan, Looking forward to Hamvention and the Drake forum.
I hope the WX cooperates.
73 from Virginia, Mike K4QU

[Non-text portions of this message have been removed]

20851. Re: [DrakeRadio] tr-7 tuning dial

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 22:29:55 UTC
From: Jim Shorney
Topic: 20842 Message: 20851

As long as you get the concentric dials lined up so the zeros are in the right spot when you are at 0 on the PTO it should be good to go. You will want to have about the same amount of calibration "slip" in either direction, but the TR-7 dial markings are never really very far off due to the synthesized HFO and excellent linearity of the PTO. Before I take one apart I place a black mark on the edge of the dial disks to mark the alignment point.

You will actually want to tilt the front panel a little bit first, this will give you room to pull the DR-7 straight up rather than fiddling around to get it past the top trim. Take the band swtich knob off and remove the two screws securing the band shaft detent plate on the back of the radio. Pull the band shaft far enough back to clear the front panel, then remove the top two (of three) screws on each side that secure the front assembly to the chassis sides. Loosen the bottom screws slightly and the front assy. will tilt nicely. From there you can remove the screws that secure the PTO to the front, disconnect three wires, and remove the PTO and drive mech completely from the rig.

The "crystal" calibrator in the TR-7 is quite accurate, as it is divided down from the 40 MHz master reference oscillator.

73

-Jim
NU0C

On Sat, 10 May 2014 22:37:18 +0300, geoffrey mendelson
geoffreymendelson@... [DrakeRadio] wrote:

>In anticipation of opening up my TR-7 to fix the stuck tuning dial, I am
>hoping that the dial itself is stuck and not the PTO. I've repaired the
>stuck dials of an SPR-4, which was very similar to the 4 line dials.
>However I can't find anything on them, except a photo of a PTO assembly,
>complete with dial still attached sitting on a table.
>
> From the looks of things, I think I will be able to remove the DR-7 and
>tilt forward the front panel exposing the dials. Do they get stuck like
>4 line dials (with the application of oil)? Am I in for something far
>worse?
>
>Do they really need to be calibrated? I understand that one can
>calibrate the quite accurately, but if you are only going to use a DR-7
>do they need any real calibration at all (beyond reading the ends of the
>bands in the right places)?
>
>Note that I have nothing better than the built in crystal calibrator and
>DR-7 to calibrate them to. I don't have a signal generator and I am out

>of range of WWV, CHU, and the EU time signal stations.
>
>TIA.
>
>Geoff.
>
>--
>Geoffrey S. Mendelson 4X1GM/N3OWJ
>Jerusalem Israel.
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20852. TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-10 22:42:33 UTC
From: Jim Shorney
Topic: 20852 Message: 20852

My TR-7 is taunting me. This may be a clue for you injun-ear types that are smarter than I am.

I installed Bob Loving's stripped down version of the PIN diode attenuator a little while back, and that seemed to tame the 40 Meter oscillation issue nicely.

However, in preparation for running W1AW/0 on 17 Meters this weekend, I find that it hasn't left. It's just moved. When I run the rig into my Butternut vertical, with or without the tuner, I can see oscillations and/or spurs around and below 18.1 MHz on a spectrum analyzer and I can see their effect on the SWR meter. What's happening varies with mode and power level.

Driving a resistive load, such as my DL-1000 or (thankfully) the 50 Ohm resistive load in the input circuit of my NCL-2000, everything is clean and happy. So I'm not off the air on 17 Meters, I just need to run QRO. :)

Interestingly, I found that the 40 Meter oscillation seemed to be happening between 9 and 10 MHz. So what's 9 x 2? 18! Is it a coincidence that the problem has moved to17 Meters? Inquiring minds want to know...

73

-Jim
NU0C

--

"It's an Earth food. They are called Swedish meatballs! It's a strange thing, but every sentient race has its own version of these Swedish meatballs! I suspect it's one of those great universal mysteries which will either never be explained, or which would drive you mad if you ever learned the truth!" - G'Kar, Babylon 5

20853. FS-4 Hooked up and Running FB

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 00:41:34 UTC
From: Whitebear1122
Topic: 20852 Message: 20853

I built up a simple cable today using RG-174 coax with an RCA plug on one end and (yikes) a paper clip and spade lug on the other :) I found the paper clip perfectly fit the HC-6 size socket. I tied the braid to a spade lug and connected that to the ground lug right below the crystal deck on the back. It was very obvious which side of the crystal socket the FS-4 wanted to be plugged in. I plugged it in the 'wrong' one first of course, and signals were attenuated. Plugged it into the other and signals were great.

I've taken the FS-4 and T-4XC/R-4C for a spin on the air on 20 meters and 17 meters, and listened to 40m, 30m, and 10m, and it works FB.

I did notice that when I set the crystal sector back to NORMAL with the FS-4 still plugged in that it seemed like the bandpass opened way up. I heard the same station but also heard stuff a little further down the band. I had already been forewarned about leaving the FS-4 plugged in while using the NORM position.

Its curious that the FS-4 styling doesn't resemble the T-4XC/R-4C styling. It's something beyond but not TR-7 styling either. This one I have is very clean and looks fabulous with the station. I notice the FS-4 knobs resemble the preselector and frequency selector knobs on the SPR-4.

To run the coax to the crystal deck I had to remove the crystal cover. The cover doesn't fit back on with the coax in place so I suppose it's something to get lost :)

I've got one more piece of Drake to hook up, the W4 wattmeter but I haven't been able to find it yet. It's squirreled away on the shelf. I'll be converting it to a PEP reading wattmeter before hooking it up.

73, Scott WA9WFA

20854. How Much Would A New T-4XC, R-4C station Cost Today? $1782

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 00:48:49 UTC
From: Whitebear1122
Topic: 20852 Message: 20854

A good friend knew I was getting the Drake gear so he left off a gift of a NOS Drake logbook and a Drake catalog from 1977 on his last visit. Wow in 1977 the catalog reports the T-4XC suggested amateur net price is $599, the R-4C $599, FS-4 $250, AC-4 $120, MS-4 $24.95, W4 $72, MN-2000 $220, MN-4 $110. Fun to look at the prices.

I used this website to calculate what those radios cost in today's dollars: http://www.usinflationcalculator.com

Based on the calculator, the $599 T-4XC, $599 R-4C would be equivalent to $2335 each, accounting for 289% cumulative inflation. The AC-4 and MS-4 would cost $584, for a total of $1782. I don't know what the actual selling price might have been.

It's interesting to put the cost in a perspective of today's dollars.

BTW the L-4B was $895 then, $3489 in todays dollars

73, Scott WA9WFA

20855. Re: [DrakeRadio] the TR4---the plot thickens

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 00:57:29 UTC
From: Garey Barrell
Topic: 20848 Message: 20855

Don't stop there.... Which cap was leaky??

The VOX is 'kicked' in with the first 'dit' or the first 'syllable' by C67/D67. IF the relay
clicks on the first key/sound and then drops right out, we're right back a week to NO SIDETONE
OSCILLATOR.

When you tune a crystal oscillator, you'll find that as you tune through resonance one side comes up smoothly, and the other side or resonance pops up very quickly. The STABLE point is
slightly down on the SLOW side.

Are the crystals the RIGHT crystals? In the RIGHT sockets?

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... [DrakeRadio] wrote:
> Gang,
>
>

20856. Garey, are their any transistors on the 4 line prone to failure?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:15:39 UTC
From: Allen Turner
Topic: 20856 Message: 20856

Garey, after your post about the 4 line and tube failures I was wondering if there are any transistors that are prone to failure in the 4 line?

Al. n7ioh
Payson, Arizona

Sent from a real computer, not no stinking phone!

20857. Photo of My Drake Station and a Photo from the 1977 Drake Catalog

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:19:26 UTC
From: Whitebear1122
Topic: 20848 Message: 20857

I posted a photo up on the drake yahoo group showing under WA9WFA showing my new Drake T-4XC, R-4C, and FS-4. I've also posted a picture that I took from the inside cover of the 1977 Drake catalog. I wonder who the cute gal is in the photo in front of the Drake equipment.

73, Scott WA9WFA

20858. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:26:52 UTC
From: Whitebear1122
Topic: 206 Message: 20858

Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA

On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:

> Scott,
>
>
> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>
>
>
> 73,
>
>
>
> Evan, K9SQG
>
>
>
>
>
>
> -----Original Message-----
> From: Whitebear1122 <whitebear1122@...>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Sun, Apr 27, 2014 3:19 pm
> Subject: [DrakeRadio] FS-4 Question
>
>
>
>
>
>
>
> Is anyone on here actively using an FS-4 synthesizer with their 4C twins? Just curious to hear how well it works and if there are issues. I do understand that the FS-4 should be removed when using internal crystal bands because of loading. I want to put my new 4C twins on 17 meters and figured the FS-4 should work fine there.
>
> 73, Scott WA9WFA

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> [Non-text portions of this message have been removed]
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>
> Yahoo Groups Links
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>
>

20859. NOS Main Tuning Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:36:52 UTC
From: Whitebear1122
Topic: 20848 Message: 20859

In a fit of extravagance I bought two NOS main tuning knobs from KE9PQ. The fellow he's getting them from says they are NOS from the purchase of the Drake inventory several years ago. They do not come with the skirt. My new T-4XC and R-4C are in fabulous and I mean fabulous condition but the main tuning knob spinners were oxidized and a minor distraction. In a fit of craziness I splurged and bought two NOS knobs and put them on yesterday. They look fabulous, have a flawless NOS aluminum insert, and nicely black spinner.

73, Scott WA9WFA

20860. Re: [DrakeRadio] Garey, are their any transistors on the 4 line prone to failure?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:37:28 UTC
From: Garey Barrell
Topic: 20856 Message: 20860

Al -

I wouldn't say any are PRONE to failure, but I have seen 'some'. I assume we're talking about
"B" line here?

2N3904 or 2N4401 are reasonable replacements for the 2N3394.

2N3877A is a little higher voltage than you see typically, the 2N5550 is a reasonable replacement.

2N5950 is a good replacement FET for the PTO and Calibrator.

The 2N3904 is a pretty good generic replacement.

Watch out for different lead arrangements with some of the above.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Allen Turner wendy101@... [DrakeRadio] wrote:
> Garey, after your post about the 4 line and tube failures I was wondering if there are any transistors that are prone to failure in the 4 line?
>
> Al. n7ioh
> Payson, Arizona
>
>

20861. Re: [DrakeRadio] Garey, are their any transistors on the 4 line prone to failure?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:43:58 UTC
From: Allen Turner
Topic: 20856 Message: 20861

I actually have a late model R-4B and two late model T-4XC's. I don't really expect to have a problem with the transistors but it would be nice to be prepared.

Al, n7ioh

On May 10, 2014, at 6:37 PM, Garey Barrell k4oah@mindspring.com [DrakeRadio] wrote:

> Al -
>
> I wouldn't say any are PRONE to failure, but I have seen 'some'. I assume we're talking about
> "B" line here?
>
> 2N3904 or 2N4401 are reasonable replacements for the 2N3394.
>
> 2N3877A is a little higher voltage than you see typically, the 2N5550 is a reasonable replacement.
>
> 2N5950 is a good replacement FET for the PTO and Calibrator.
>
> The 2N3904 is a pretty good generic replacement.
>
> Watch out for different lead arrangements with some of the above.!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Allen Turner wendy101@... [DrakeRadio] wrote:
> > Garey, after your post about the 4 line and tube failures I was wondering if there are any transistors that are prone to failure in the 4 line?
> >
> > Al. n7ioh
> > Payson, Arizona
> >
> >
>
>

[Non-text portions of this message have been removed]

20862. Re: [DrakeRadio] Garey, are their any transistors on the 4 line prone to failure?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:47:43 UTC
From: L L bahr
Topic: 20856 Message: 20862

A few years ago I had the oscillator transistor go out in a R-4C PTO.

Lee, w0vt

20863. Re: [DrakeRadio] NOS Main Tuning Knobs

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:53:24 UTC
From: Garey Barrell
Topic: 20848 Message: 20863

Scott -

Betcha' they're really TR-7 knobs!! :-) If you measure the 'depth' of the knob you'll find they are a little 'shorter'.! Unless he got them before 1998, cause that's what they were selling then.... No big deal, unless the circlip is too far back from the front panel, in which case the skirt can scrape the panel.

So if you don't mind 'non-standard' knobs ..... well then that's YOUR decision!! :-) :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 whitebear1122@... [DrakeRadio] wrote:
> In a fit of extravagance I bought two NOS main tuning knobs from KE9PQ. The fellow he's getting them from says they are NOS from the purchase of the Drake inventory several years ago. They do not come with the skirt. My new T-4XC and R-4C are in fabulous and I mean fabulous condition but the main tuning knob spinners were oxidized and a minor distraction. In a fit of craziness I splurged and bought two NOS knobs and put them on yesterday. They look fabulous, have a flawless NOS aluminum insert, and nicely black spinner.
>
> 73, Scott WA9WFA
>
>

20864. Re: [DrakeRadio] Garey, are their any transistors on the 4 line prone to failure?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 01:57:02 UTC
From: Garey Barrell
Topic: 20856 Message: 20864

Yeah, that's a 2N5950. I've seen a few get 'jittery', but very few. Considering they made 30k
of them, not too many failures. :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'L L bahr ' pulsarxp@... [DrakeRadio] wrote:
> A few years ago I had the oscillator transistor go out in a R-4C PTO.
>
> Lee, w0vt
>
>
>

20865. Re: tr-7 service manual

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 02:06:32 UTC
From: atlantacelt@...
Topic: 20840 Message: 20865

Geoff, I think I got mine at this address and pictures are clear. http://www.mods.dk/manual.php?brand=drake http://www.mods.dk/manual.php?brand=drake You have to register but you can download a manual every 4 days for no charge. It is in pdf format not ebook. All I have seen around the web are pdfs.
Don

[Non-text portions of this message have been removed]

20866. L-4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 02:26:07 UTC
From: Whitebear1122
Topic: 20840 Message: 20866

I am thinking about purchasing an L-4B to round out my new T-4XC/R-4C station. I wonder if there are any L-4B's available in the Minneapolis/Saint Paul area first off, or if there are any for sale within driving distance, or if any for sale via shipping. I would be looking for 100% functionality and excellent condition, Eimac tubes preferable. Please email off list.

73, Scott WA9WFA in Saint Paul MN

20867. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 02:59:40 UTC
From: Jim Shorney
Topic: 20852 Message: 20867

Well, I was wrong. It's back on 40 Meters as well. Takes off into a nice 9-ish MHz sustained high power oscillation after I squirt some RF out.

Further observations:

30, 20, 15, 12, and 10 Meters are rock stable. 10 Meters seems to be the cleanest of all, a solid 100 Watts with no detectable funnies.

160 and 80 exhibit lower level spurs around 21 and 42 MHz related to RF output. Maybe related, maybe not. Don't know how far down they are, my "sampling probe" isn't flat across HF.

I would really like to blame the antenna, but that doesn't seen logical. On the stable bands it puts out clean power into not exactly flat SWR, up to 2:1. On 40 an 17 it takes off like a bat even with the tuner adjusted for 1:1 match. As I recall at one point on the bench I was able to get 40 to take off into a dummy load.

Something is changing. Every time I think I have this solved it seems to come back with a vengeance within a few weeks. What, other than electrolytic capacitors, could be getting progressively worse in this radio?

73

-Jim
NU0C

On Sat, 10 May 2014 17:42:33 -0500, 'Jim Shorney' jshorney@...
[DrakeRadio] wrote:

>
>My TR-7 is taunting me. This may be a clue for you injun-ear types that are
>smarter than I am.
>
>I installed Bob Loving's stripped down version of the PIN diode attenuator a
>little while back, and that seemed to tame the 40 Meter oscillation issue
>nicely.
>
>However, in preparation for running W1AW/0 on 17 Meters this weekend, I find
>that it hasn't left. It's just moved. When I run the rig into my Butternut
>vertical, with or without the tuner, I can see oscillations and/or spurs around
>and below 18.1 MHz on a spectrum analyzer and I can see their effect on the SWR
>meter. What's happening varies with mode and power level.
>
>Driving a resistive load, such as my DL-1000 or (thankfully) the 50 Ohm
>resistive load in the input circuit of my NCL-2000, everything is clean and
>happy. So I'm not off the air on 17 Meters, I just need to run QRO. :)

>
>Interestingly, I found that the 40 Meter oscillation seemed to be happening
>between 9 and 10 MHz. So what's 9 x 2? 18! Is it a coincidence that the problem
>has moved to17 Meters? Inquiring minds want to know...
>
>73
>
>-Jim
>NU0C

--

"Good men don□t need rules. Today is not the day to find out why I have so many." - Doctor Who

20868. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 03:01:49 UTC
From: Evan Rolek
Topic: 206 Message: 20868

Scott,

That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.

73,

Evan

\-----Original Message-----
From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Cc: k9sgg <k9sgg@...>
Sent: Sat, May 10, 2014 9:29 pm
Subject: Re: [DrakeRadio] FS-4 Question

Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA

On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:

> Scott,
>
>
> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>
>
>
> 73,
>
>
>
> Evan, K9SQG
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>
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>
> -----Original Message-----
> From: Whitebear1122 <whitebear1122@comcast.net>

> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Sun, Apr 27, 2014 3:19 pm
> Subject: [DrakeRadio] FS-4 Question
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>
> Is anyone on here actively using an FS-4 synthesizer with their 4C twins? Just curious to hear how well it works and if there are issues. I do understand that the FS-4 should be removed when using internal crystal bands because of loading. I want to put my new 4C twins on 17 meters and figured the FS-4 should work fine there.
>
> 73, Scott WA9WFA
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> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20869. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 03:19:44 UTC
From: Whitebear1122
Topic: 206 Message: 20869

Evan, I first noticed it when I switched back to the NORM position while the FS-4 was plugged in. I was hearing signals further outside the normal passband. I would switch the FS-4 back in and bandwidth would be normal. Yes I have the correct polarity because I first inserted it in a position where signals were greatly attenuated. I was advised of this possiiblity. I switched to the other crystal position and signals were now normal. I'm pleasantly surprised with the performance of the FS-4. Guess I was expecting it to be marginal or crappy. Not at all, it is very good and I'm cruising the WARC bands, and listening to 20m right now at 10:20 PM . 73, Scott WA9WFA

On May 10, 2014, at 10:01 PM, Evan Rolek <k9sqg@...> wrote:

> Scott,
>
> That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.
>
> 73,
>
> Evan
>
>
> \-----Original Message-----
> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Cc: k9sgg <k9sgg@...>
> Sent: Sat, May 10, 2014 9:29 pm
> Subject: Re: [DrakeRadio] FS-4 Question
>
> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
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> On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:
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> > Scott,
> >
> >
> > I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
> >
> >

> >
> > 73,
> >
> >
> >
> > Evan, K9SQG
> >
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> >
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> >
> >
> > -----Original Message-----
> > From: Whitebear1122 <whitebear1122@...>
> > To: DrakeRadio <DrakeRadio@yahoogroups.com>
> > Sent: Sun, Apr 27, 2014 3:19 pm
> > Subject: [DrakeRadio] FS-4 Question
> >
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> >
> >
> >
> >
> > Is anyone on here actively using an FS-4 synthesizer with their 4C twins? Just curious to hear how well it works and if there are issues. I do understand that the FS-4 should be removed when using internal crystal bands because of loading. I want to put my new 4C twins on 17 meters and figured the FS-4 should work fine there.
> >
> > 73, Scott WA9WFA
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> > [Non-text portions of this message have been removed]
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> > Yahoo Groups Links
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[Non-text portions of this message have been removed]

20870. WTB/WTT: MS-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 03:28:03 UTC
From: tranquility@...
Topic: 20870 Message: 20870

Looking for an MS-4 with or without speaker. Can afford only reasonable type price but have some decent non-Drake gear to swap.

[Non-text portions of this message have been removed]

20871. Re: Photo of My Drake Station and a Photo from the 1977 Drake Catalog

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 04:16:00 UTC
From: Roger Roger
Topic: 20848 Message: 20871

that would be my grandmother

--
W5RJH

[Non-text portions of this message have been removed]

20872. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 14:10:03 UTC
From: Garey Barrell
Topic: 206 Message: 20872

Evan/Scott -

It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the 'common' lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which becomes a
'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid. This means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the LOWER
pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this setup,
switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer. The
FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator, reducing
the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone crystals,
which doesn't take much!

Some think they can make up a neat little connector from a dead crystal, and plug it into a specific XTAL socket, and then 'choose' that position when they want to use the FS-4. This scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives the
PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back on
crystal control! NOT! This way, when you switch away from the 'specific' socket back to NORM,
you still have the shield of the coax (ground!) connected to the INPUT of the BAND oscillator.... Drags it down, AND may make the crystal you then select somewhat 'squirrelly'.
Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray loads.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 whitebear1122@... [DrakeRadio] wrote:
> Evan, I first noticed it when I switched back to the NORM position while the FS-4 was plugged in. I was hearing signals further outside the normal passband. I would switch the FS-4 back in and bandwidth would be normal. Yes I have the correct polarity because I first inserted it in a position where signals were greatly attenuated. I was advised of this possiiblity. I switched to the other crystal position and signals were now normal. I'm pleasantly surprised with the performance of the FS-4. Guess I was expecting it to be

marginal or crappy. Not at all, it is very good and I'm cruising the WARC bands, and listening to 20m right now at 10:20 PM . 73, Scott WA9WFA
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>> Scott,
>>
>> That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.
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>>
>> Evan
>>
>>
>> \-----Original Message-----
>> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> Cc: k9sgg <k9sgg@...>
>> Sent: Sat, May 10, 2014 9:29 pm
>> Subject: Re: [DrakeRadio] FS-4 Question
>>
>> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
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>>
>>

20873. Model 2560 Tuning Meter?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 13:55:26 UTC
From: haj3325@...
Topic: 20873 Message: 20873

One of these on eBay. Anyone know what it is and what it does? The seller was pretty much in the dark about it and I've never heard of it. Can anyone shed some light on this thing?

[Non-text portions of this message have been removed]

20874. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 14:31:16 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 20874

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

20875. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 14:35:53 UTC
From: Garey Barrell
Topic: 20852 Message: 20875

Jim -

You DO find interesting problems! :-)

I don't think it's related to just 'YOUR' radio. I've seen several that want to take off on 40M. I suspect that's the maximum gain point of the PA design, so takes off first??

RF getting back into the '723 in the PS-7? Do you have anything plugged into the ACCY jack? It's connected directly to the current sense input of the '723.

Try running the PA ONLY from a supply other than the PS-7. And vice versa....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:
> Well, I was wrong. It's back on 40 Meters as well. Takes off into a nice 9-ish
> MHz sustained high power oscillation after I squirt some RF out.
>
> Further observations:
>
> 30, 20, 15, 12, and 10 Meters are rock stable. 10 Meters seems to be the
> cleanest of all, a solid 100 Watts with no detectable funnies.
>
> 160 and 80 exhibit lower level spurs around 21 and 42 MHz related to RF output.
> Maybe related, maybe not. Don't know how far down they are, my "sampling probe"
> isn't flat across HF.
>
> I would really like to blame the antenna, but that doesn't seen logical. On the
> stable bands it puts out clean power into not exactly flat SWR, up to 2:1. On
> 40 an 17 it takes off like a bat even with the tuner adjusted for 1:1 match. As
> I recall at one point on the bench I was able to get 40 to take off into a
> dummy load.
>
> Something is changing. Every time I think I have this solved it seems to come
> back with a vengeance within a few weeks. What, other than electrolytic
> capacitors, could be getting progressively worse in this radio?
>
> 73
>
> -Jim
> NU0C
>

> On Sat, 10 May 2014 17:42:33 -0500, 'Jim Shorney' jshorney@...
> [DrakeRadio] wrote:
>
>> My TR-7 is taunting me. This may be a clue for you injun-ear types that are
>> smarter than I am.
>>
>> I installed Bob Loving's stripped down version of the PIN diode attenuator a
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>> nicely.
>>
>> However, in preparation for running W1AW/0 on 17 Meters this weekend, I find
>> that it hasn't left. It's just moved. When I run the rig into my Butternut
>> vertical, with or without the tuner, I can see oscillations and/or spurs around
>> and below 18.1 MHz on a spectrum analyzer and I can see their effect on the SWR
>> meter. What's happening varies with mode and power level.
>>
>> Driving a resistive load, such as my DL-1000 or (thankfully) the 50 Ohm
>> resistive load in the input circuit of my NCL-2000, everything is clean and
>> happy. So I'm not off the air on 17 Meters, I just need to run QRO. :)
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>> Interestingly, I found that the 40 Meter oscillation seemed to be happening
>> between 9 and 10 MHz. So what's 9 x 2? 18! Is it a coincidence that the problem
>> has moved to17 Meters? Inquiring minds want to know...
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>>
>> -Jim
>> NU0C
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> "Good men don’t need rules. Today is not the day to find out why I have so many." -
Doctor Who
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> Yahoo Groups Links
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20876. Yahoo drake radios group net?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 14:49:36 UTC
From: rjhassell@...
Topic: 20876 Message: 20876

I know there are Drake nets out there but I am usually at work when there on. The yahoo drake group should set up some times and a frequency or 2 for a little rag chew type net. I know there is alot of people that would like to talk to each other over something other than email. Has anyone in the group here tried this already?
Roger
W5rjh

[Non-text portions of this message have been removed]

20877. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 14:53:02 UTC
From: Paolo Emanuelli IK1QHB
Topic: 20852 Message: 20877

Ciao

All happens also un dummy load?

Paul IK1QHB

Il giorno 11/mag/2014, alle ore 16:35, Garey Barrell k4oah@... [DrakeRadio] ha scritto:

> Jim -
>
> You DO find interesting problems! :-)
>
> I don't think it's related to just 'YOUR' radio. I've seen several that want to take off on
> 40M. I suspect that's the maximum gain point of the PA design, so takes off first??
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> RF getting back into the '723 in the PS-7? Do you have anything plugged into the ACCY jack?
> It's connected directly to the current sense input of the '723.
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> Try running the PA ONLY from a supply other than the PS-7. And vice versa....
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> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> >
> > Further observations:
> >
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> > I recall at one point on the bench I was able to get 40 to take off into a

> > dummy load.
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> > 73
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> > -Jim
> > NU0C
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> >> -Jim
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> > --
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Doctor Who
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> > Yahoo Groups Links

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[Non-text portions of this message have been removed]

20878. Re: [DrakeRadio] the TR4---the plot thickens

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 15:10:01 UTC
From: Mike Bryce
Topic: 20848 Message: 20878

Garey and the gang

the leaky capacitor, a .01, was across the audio transformer. I don't remember what name it is called.

Found a 3.3M resistor in the VOX circuit that was well over 5 Megs. Replaced the .1 cap.

Still a bit flaky...

Found the reason why I get a squeal now and then, but not the fix. I found that turning up the mic gain to max was the culprit. IT's not suppose do that, so, I'll need to dig deeper into the speech amplifier.

I can hear the calibrator signal now on ten, but it sounds super rough as though the agc has ac riding on it. Calibrator sounds completely normal on other bands.

I think I found the problem for low output on 80. It's alignment. On the high end, 4.00, bang! 150 watts on the low end, 3.5, 50ish watts.

The plot continues....

mike, wb8vge

the heathkitshop.com

On Sat, May 10, 2014 at 8:57 PM, Garey Barrell <k4oah@...> wrote:

> Don't stop there.... Which cap was leaky??
>
> The VOX is 'kicked' in with the first 'dit' or the first 'syllable' by
> C67/D67. IF the relay clicks on the first key/sound and then drops right
> out, we're right back a week to NO SIDETONE OSCILLATOR.
>
> When you tune a crystal oscillator, you'll find that as you tune through
> resonance one side comes up smoothly, and the other side or resonance pops
> up very quickly. The STABLE point is slightly down on the SLOW side.
>
> Are the crystals the RIGHT crystals? In the RIGHT sockets?
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

> prosolar@... [DrakeRadio] wrote:
>
>> Gang,
>>
>>
>
>

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

J e e p
o|||||||o

[Non-text portions of this message have been removed]

20879. Re: [DrakeRadio] the TR4---the plot thickens

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 15:28:10 UTC
From: Garey Barrell
Topic: 20848 Message: 20879

Mike Bryce prosolar@... [DrakeRadio] wrote:
> the leaky capacitor, a .01, was across the audio transformer. I don't
> remember what name it is called.

Ah, the old 'C136' trick! :-)
>
> Found a 3.3M resistor in the VOX circuit that was well over 5 Megs.
> Replaced the .1 cap.

If the resistor is sitting up on 'posts', it's the VOX DELAY resistor, select at test, R106.
Increase would SLOW the VOX drop-out time.

C143 is the VOX integrating capacitor, leakage would SPEED UP the drop-out! May have canceled
each other out!

>
> Found the reason why I get a squeal now and then, but not the fix. I found
> that turning up the mic gain to max was the culprit. IT's not suppose do
> that, so, I'll need to dig deeper into the speech amplifier.

Simple feedback, Probably C145B.
>
> I can hear the calibrator signal now on ten, but it sounds super rough as
> though the agc has ac riding on it. Calibrator sounds completely normal on
> other bands.

Maybe 0A2. You're listening to the ~290th harmonic, so any ripple or noise on the CAL signal
is multiplied too!
>
> I think I found the problem for low output on 80. It's alignment. On the
> high end, 4.00, bang! 150 watts on the low end, 3.5, 50ish watts.

Possibly poor solder/connection to one of the LOAD capacitor sections.

You're getting there!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

>
>

>
> On Sat, May 10, 2014 at 8:57 PM, Garey Barrell <k4oah@...> wrote:
>
>> Don't stop there.... Which cap was leaky??
>>
>> The VOX is 'kicked' in with the first 'dit' or the first 'syllable' by
>> C67/D67. IF the relay clicks on the first key/sound and then drops right
>> out, we're right back a week to NO SIDETONE OSCILLATOR.
>>
>> When you tune a crystal oscillator, you'll find that as you tune through
>> resonance one side comes up smoothly, and the other side or resonance pops
>> up very quickly. The STABLE point is slightly down on the SLOW side.
>>
>> Are the crystals the RIGHT crystals? In the RIGHT sockets?
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> prosolar@... [DrakeRadio] wrote:
>>
>>> Gang,
>>>
>>>
>>
>

20880. TR-7 Fail

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 15:25:51 UTC
From: Gerardo Gonzalez
Topic: 20880 Message: 20880

Hello.

I have a TR-7 with a problema, the transceiver is standing for several years.

And now I'm back to using it but I have a problem, the VFO is always kept at the same frequency (10.600.0 approx) if you change the throw.

Someone can help me fix it.

A greeting.

73s of Gerardo

[Non-text portions of this message have been removed]

20881. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 16:30:48 UTC
From: Jim Shorney
Topic: 20852 Message: 20881

Usually stable into a dummy load, I could only get it to oscillate on 40 Meters into a dummy load if I turned the predriver gain up higher than necessary.

73

-Jim
NU0C

On Sun, 11 May 2014 16:53:02 +0200, Paolo Emanuelli IK1QHB ik1qhb@... [DrakeRadio] wrote:

>Ciao
>
>All happens also un dummy load?
>
>Paul IK1QHB
>
>
>Il giorno 11/mag/2014, alle ore 16:35, Garey Barrell k4oah@... [DrakeRadio] ha scritto:
>
>> Jim -
>>
>> You DO find interesting problems! :-)
>>
>> I don't think it's related to just 'YOUR' radio. I've seen several that want to take off on
>> 40M. I suspect that's the maximum gain point of the PA design, so takes off first??
>>
>> RF getting back into the '723 in the PS-7? Do you have anything plugged into the ACCY jack?
>> It's connected directly to the current sense input of the '723.
>>
>> Try running the PA ONLY from a supply other than the PS-7. And vice versa....
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> 'Jim Shorney' jshorney@... [DrakeRadio] wrote:
>> > Well, I was wrong. It's back on 40 Meters as well. Takes off into a nice 9-ish
>> > MHz sustained high power oscillation after I squirt some RF out.
>> >
>> > Further observations:
>> >

>> > 30, 20, 15, 12, and 10 Meters are rock stable. 10 Meters seems to be the
>> > cleanest of all, a solid 100 Watts with no detectable funnies.
>> >
>> > 160 and 80 exhibit lower level spurs around 21 and 42 MHz related to RF output.
>> > Maybe related, maybe not. Don't know how far down they are, my "sampling probe"
>> > isn't flat across HF.
>> >
>> > I would really like to blame the antenna, but that doesn't seen logical. On the
>> > stable bands it puts out clean power into not exactly flat SWR, up to 2:1. On
>> > 40 an 17 it takes off like a bat even with the tuner adjusted for 1:1 match. As
>> > I recall at one point on the bench I was able to get 40 to take off into a
>> > dummy load.
>> >
>> > Something is changing. Every time I think I have this solved it seems to come
>> > back with a vengeance within a few weeks. What, other than electrolytic
>> > capacitors, could be getting progressively worse in this radio?
>> >
>> > 73
>> >
>> > -Jim
>> > NU0C
>> >
>> > On Sat, 10 May 2014 17:42:33 -0500, 'Jim Shorney' jshorney@...
>> > [DrakeRadio] wrote:
>> >
>> >> My TR-7 is taunting me. This may be a clue for you injun-ear types that are
>> >> smarter than I am.
>> >>
>> >> I installed Bob Loving's stripped down version of the PIN diode attenuator a
>> >> little while back, and that seemed to tame the 40 Meter oscillation issue
>> >> nicely.
>> >>
>> >> However, in preparation for running W1AW/0 on 17 Meters this weekend, I find
>> >> that it hasn't left. It's just moved. When I run the rig into my Butternut
>> >> vertical, with or without the tuner, I can see oscillations and/or spurs around
>> >> and below 18.1 MHz on a spectrum analyzer and I can see their effect on the SWR
>> >> meter. What's happening varies with mode and power level.
>> >>
>> >> Driving a resistive load, such as my DL-1000 or (thankfully) the 50 Ohm
>> >> resistive load in the input circuit of my NCL-2000, everything is clean and
>> >> happy. So I'm not off the air on 17 Meters, I just need to run QRO. :)
>> >>
>> >> Interestingly, I found that the 40 Meter oscillation seemed to be happening
>> >> between 9 and 10 MHz. So what's 9 x 2? 18! Is it a coincidence that the problem
>> >> has moved to17 Meters? Inquiring minds want to know...
>> >>
>> >> 73
>> >>
>> >> -Jim

>> >> NU0C
>> > --
>> >
>> > "Good men don□t need rules. Today is not the day to find out why I have so many." - Doctor Who
>> >
>> >
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>> > ---
>> >
>> > Yahoo Groups Links
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>[Non-text portions of this message have been removed]
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>Yahoo Groups Links
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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20882. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 16:46:28 UTC
From: Jim Shorney
Topic: 20852 Message: 20882

Good suggestions, old man. I know that there are other rigs that do it on 40, so I would really like to crack this nut. Yes, from my earlier testing there seems to be a gain peak in the 9 to 10 MHz area of the system. The output filtering may figure in there somehow, because 30 Meters is rock stable and it is in the same band segment as 20 Meters. They only seem to oscillate in the 40 Meter band segment ... and now 17 Meters. Interestingly, 15, 12, and 10 Meters are stable. 17 Meters is in the 15 Meter band segment. Figure that one out.

I don't think it's supply related, either. I do have my SP-75 plugged in to the accessory jack. Although I can get the PS-7 to shut down on 80 Meters if I turn the CW level "up to 11", that's a different issue. My bench test supply is an Astron 35M, and the radio will take off just as happily on that one. The idea of trying the PA deck on a seperate supply is interesting. I also thought of swapping PA decks with the spare TR-7 to see what happens.

This is where I really need an engineer that understands this stuff. I know you're a tube guy, but I do appreciate the suggestions. I'll be able to tinker with it more after the W1AW/0 craziness is done with. I need to tear down and re-lube the PTO in the spare rig before I can swap it into the system anyway.

I think my next project will be to re-cap all of the electrolytics in this radio. It's probably not at all related to this problem, but I do see a couple of other areas that could benefit from it.

73

-Jim
NU0C

On Sun, 11 May 2014 10:35:53 -0400, Garey Barrell k4oah@...
[DrakeRadio] wrote:

>Jim -
>
>You DO find interesting problems! :-)
>
>I don't think it's related to just 'YOUR' radio. I've seen several that want to take off on
>40M. I suspect that's the maximum gain point of the PA design, so takes off first??
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>RF getting back into the '723 in the PS-7? Do you have anything plugged into the ACCY jack?
>It's connected directly to the current sense input of the '723.
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>Try running the PA ONLY from a supply other than the PS-7. And vice versa....
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>73, Garey - K4OAH
>Glen Allen, VA

>
>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>'Jim Shorney' jshorney@inebraska.com [DrakeRadio] wrote:
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>> MHz sustained high power oscillation after I squirt some RF out.
>>
>> Further observations:
>>
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>> Maybe related, maybe not. Don't know how far down they are, my "sampling probe"
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>> stable bands it puts out clean power into not exactly flat SWR, up to 2:1. On
>> 40 an 17 it takes off like a bat even with the tuner adjusted for 1:1 match. As
>> I recall at one point on the bench I was able to get 40 to take off into a
>> dummy load.
>>
>> Something is changing. Every time I think I have this solved it seems to come
>> back with a vengeance within a few weeks. What, other than electrolytic
>> capacitors, could be getting progressively worse in this radio?
>>
>> 73
>>
>> -Jim
>> NU0C
>>
>> On Sat, 10 May 2014 17:42:33 -0500, 'Jim Shorney' jshorney@...
>> [DrakeRadio] wrote:
>>
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>>> resistive load in the input circuit of my NCL-2000, everything is clean and
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>> "Good men donâ□□t need rules. Today is not the day to find out why I have so many." - Doctor Who
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>> Yahoo Groups Links
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Ham Radio NU0C
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"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20883. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 16:50:20 UTC
From: Evan Rolek
Topic: 206 Message: 20883

Good points Garey! Seems like a relay might be in order...

-----Original Message-----
From: Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Sun, May 11, 2014 10:10 am
Subject: Re: [DrakeRadio] FS-4 Question

Evan/Scott -

It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the 'common' lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which becomes a
'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid. This means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the LOWER
pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this setup,
switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer. The
FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator, reducing
the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone crystals,
which doesn't take much!

Some think they can make up a neat little connector from a dead crystal, and plug it into a specific XTAL socket, and then 'choose' that position when they want to use the FS-4. This scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives the
PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back on
crystal control! NOT! This way, when you switch away from the 'specific' socket back to NORM,
you still have the shield of the coax (ground!) connected to the INPUT of the BAND oscillator.... Drags it down, AND may make the crystal you then select somewhat 'squirrelly'.
Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray loads.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>;

Whitebear1122 whitebear1122@comcast.net [DrakeRadio] wrote:
> Evan, I first noticed it when I switched back to the NORM position while the FS-4 was plugged in. I was hearing signals further outside the normal passband. I would switch the FS-4 back in and bandwidth would be normal. Yes I have the correct polarity because I first inserted it in a position where signals were greatly attenuated. I was advised of this possiiblity. I switched to the other crystal position and signals were now normal. I'm pleasantly surprised with the performance of the FS-4. Guess I was expecting it to be marginal or crappy. Not at all, it is very good and I'm cruising the WARC bands, and listening to 20m right now at 10:20 PM . 73, Scott WA9WFA
>
>
> On May 10, 2014, at 10:01 PM, Evan Rolek <k9sqg@...> wrote:
>
>> Scott,
>>
>> That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.
>>
>> 73,
>>
>> Evan
>>
>>
>> \-----Original Message-----
>> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> Cc: k9sgg <k9sgg@arrl.net>
>> Sent: Sat, May 10, 2014 9:29 pm
>> Subject: Re: [DrakeRadio] FS-4 Question
>>
>> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
>>
>> On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:
>>
>>
>> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>>
>>

[Non-text portions of this message have been removed]

20884. Re: [DrakeRadio] Yahoo drake radios group net?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 16:51:52 UTC
From: Evan Rolek
Topic: 20876 Message: 20884

Closest things are the Drake Technical Net and the Drake and Antique Tube Gear Net...

-----Original Message-----
From: rjhassell@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@...m>
Sent: Sun, May 11, 2014 10:49 am
Subject: [DrakeRadio] Yahoo drake radios group net?

I know there are Drake nets out there but I am usually at work when there on. The yahoo drake group should set up some times and a frequency or 2 for a little rag chew type net. I know there is alot of people that would like to talk to each other over something other than email. Has anyone in the group here tried this already?
Roger
W5rjh

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20885. Re: [DrakeRadio] Yahoo drake radios group net?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:02:05 UTC
From: Ray Fair
Topic: 20876 Message: 20885

What time ,day week , band and frq.
73
Thanks
Ray
KC4DYM

Sent from my ASUS Pad

"Evan Rolek k9sqg@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

>
>
>Closest things are the Drake Technical Net and the Drake and Antique Tube Gear Net...
>
>-----Original Message-----
>From: rjhassell@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>To: DrakeRadio <DrakeRadio@yahoogroups.com>
>Sent: Sun, May 11, 2014 10:49 am
>Subject: [DrakeRadio] Yahoo drake radios group net?
>
>I know there are Drake nets out there but I am usually at work when there on. The yahoo drake group should set up some times and a frequency or 2 for a little rag chew type net. I know there is alot of people that would like to talk to each other over something other than email. Has anyone in the group here tried this already?
>Roger
>W5rjh
>
>[Non-text portions of this message have been removed]
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><!-- #ygrp-mkp { border: 1px solid #d8d8d8; font-family: Arial; margin: 10px 0; padding: 0 10px; } #ygrp-mkp hr { border: 1px solid #d8d8d8; } #ygrp-mkp #hd { color: #628c2a; font-size: 85%; font-weight: 700; line-height: 122%; margin: 10px 0; } #ygrp-mkp #ads { margin-bottom: 10px; } #ygrp-mkp .ad { padding: 0 0; } #ygrp-mkp .ad p { margin: 0; } #ygrp-mkp .ad a { color: #0000ff; text-decoration: none; } #ygrp-sponsor #ygrp-lc { font-family: Arial; } #ygrp-sponsor #ygrp-lc #hd { margin: 10px 0px; font-weight: 700; font-size: 78%; line-height: 122%; } #ygrp-sponsor #ygrp-lc .ad { margin-bottom: 10px; padding: 0 0; } #actions { font-family: Verdana; font-size: 11px; padding: 10px 0; } #activity { background-color: #e0ecee; float: left; font-family: Verdana; font-size: 10px; padding: 10px; } #activity span { font-weight: 700; } #activity span:first-child { text-transform: uppercase; } #activity span a { color: #5085b6; text-decoration: none; } #activity span span { color: #ff7900; } #activity span .underline { text-decoration: underline; } .attach { clear: both; display: table; font-family: Arial; font-size: 12px;

padding: 10px 0; width: 400px; } .attach div a { text-decoration: none; } .attach img { border: none; padding-right: 5px; } .attach label { display: block; margin-bottom: 5px; } .attach label a { text-decoration: none; } blockquote { margin: 0 0 0 4px; } .bold { font-family: Arial; font-size: 13px; font-weight: 700; } .bold a { text-decoration: none; } dd.last p a { font-family: Verdana; font-weight: 700; } dd.last p span { margin-right: 10px; font-family: Verdana; font-weight: 700; } dd.last p span.yshortcuts { margin-right: 0; } div.attach-table div div a { text-decoration: none; } div.attach-table { width: 400px; } div.file-title a, div.file-title a:active, div.file-title a:hover, div.file-title a:visited { text-decoration: none; } div.photo-title a, div.photo-title a:active, div.photo-title a:hover, div.photo-title a:visited { text-decoration: none; } div#ygrp-mlmsg #ygrp-msg p a span.yshortcuts { font-family: Verdana; font-size: 10px; font-weight: normal; } .green { color: #628c2a; } .MsoNormal { margin: 0 0 0 0; } o { font-size: 0; } #photos div { float: left; width: 72px; } #photos div div { border: 1px solid #666666; height: 62px; overflow: hidden; width: 62px; } #photos div label { color: #666666; font-size: 10px; overflow: hidden; text-align: center; white-space: nowrap; width: 64px; } #reco-category { font-size: 77%; } #reco-desc { font-size: 77%; } .replbq { margin: 4px; } #ygrp-actbar div a:first-child { /* border-right: 0px solid #000;*/ margin-right: 2px; padding-right: 5px; } #ygrp-mlmsg { font-size: 13px; font-family: Arial, helvetica,clean, sans-serif; *font-size: small; *font: x-small; } #ygrp-mlmsg table { font-size: inherit; font: 100%; } #ygrp-mlmsg select, input, textarea { font: 99% Arial, Helvetica, clean, sans-serif; } #ygrp-mlmsg pre, code { font:115% monospace; *font-size:100%; } #ygrp-mlmsg * { line-height: 1.22em; } #ygrp-mlmsg #logo { padding-bottom: 10px; } #ygrp-msg p a { font-family: Verdana; } #ygrp-msg p#attach-count span { color: #1E66AE; font-weight: 700; } #ygrp-reco #reco-head { color: #ff7900; font-weight: 700; } #ygrp-reco { margin-bottom: 20px; padding: 0px; } #ygrp-sponsor #ov li a { font-size: 130%; text-decoration: none; } #ygrp-sponsor #ov li { font-size: 77%; list-style-type: square; padding: 6px 0; } #ygrp-sponsor #ov ul { margin: 0; padding: 0 0 0 8px; } #ygrp-text { font-family: Georgia; } #ygrp-text p { margin: 0 0 1em 0; } #ygrp-text tt { font-size: 120%; } #ygrp-vital ul li:last-child { border-right: none !important; } -->

[Non-text portions of this message have been removed]

20886. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:03:29 UTC
From: Garey Barrell
Topic: 206 Message: 20886

Rob Sherwood offered a relay kit back when the FS-4 was more common. Worked very well, and a
lot easier than reaching around to the back of the radio!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Evan Rolek k9sqg@... [DrakeRadio] wrote:
> Good points Garey! Seems like a relay might be in order...
>
>
>
> -----Original Message-----
> From: Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Sun, May 11, 2014 10:10 am
> Subject: Re: [DrakeRadio] FS-4 Question
>
>
>
>
>
>
> Evan/Scott -
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> It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the
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> 'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid.
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> means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the
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NORM,
> you still have the shield of the coax (ground!) connected to the INPUT of the BAND
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> Glen Allen, VA
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>> Evan, I first noticed it when I switched back to the NORM position while the FS-4 was
plugged in. I was hearing signals further outside the normal passband. I would switch the
FS-4 back in and bandwidth would be normal. Yes I have the correct polarity because I first
inserted it in a position where signals were greatly attenuated. I was advised of this
possiiblity. I switched to the other crystal position and signals were now normal. I'm
pleasantly surprised with the performance of the FS-4. Guess I was expecting it to be
marginal or crappy. Not at all, it is very good and I'm cruising the WARC bands, and
listening to 20m right now at 10:20 PM . 73, Scott WA9WFA
>>
>>
>> On May 10, 2014, at 10:01 PM, Evan Rolek <k9sqg@...> wrote:
>>
>>> Scott,
>>>
>>> That is interesting. Not sure I have an explanation for adverse effects. I do know,
however, that the plug from the FS-4 has to be inserted with the proper polarity in the
R4C.
>>>
>>> 73,
>>>
>>> Evan
>>>
>>>
>>> \-----Original Message-----
>>> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>

>>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>>> Cc: k9sgg <k9sgg@...>
>>> Sent: Sat, May 10, 2014 9:29 pm
>>> Subject: Re: [DrakeRadio] FS-4 Question
>>>
>>> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
>>>
>>> On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:
>>>
>>>
>>> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>>>
>>>

20887. Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:05:09 UTC
From: Evan Rolek
Topic: 20876 Message: 20887

Drake Technical Net
Sunday

4 pm Eastern time

7238 +/- QRM
Sometimes a pre-net, and sometimes a post-net.

Drake and Antique Tube Gear Net
Tuesday
8 pm Eastern time
3865 +/- QRM

[Non-text portions of this message have been removed]

20888. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:17:24 UTC
From: Garey Barrell
Topic: 20852 Message: 20888

Jim -

OK. Well I spent quite a few years as an RFI/EMI engineer for NASA, and I'll tell you there are
LOTS of ways for RF to get where it's not supposed to!! :-)

Don't forget there is 'conducted' interference on power and control leads as well as 'radiated'.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:
> Good suggestions, old man. I know that there are other rigs that do it on 40,
> so I would really like to crack this nut. Yes, from my earlier testing there
> seems to be a gain peak in the 9 to 10 MHz area of the system. The output
> filtering may figure in there somehow, because 30 Meters is rock stable and it
> is in the same band segment as 20 Meters. They only seem to oscillate in the 40
> Meter band segment ... and now 17 Meters. Interestingly, 15, 12, and 10 Meters
> are stable. 17 Meters is in the 15 Meter band segment. Figure that one out.
>
> I don't think it's supply related, either. I do have my SP-75 plugged in to the
> accessory jack. Although I can get the PS-7 to shut down on 80 Meters if I turn
> the CW level "up to 11", that's a different issue. My bench test supply is an
> Astron 35M, and the radio will take off just as happily on that one. The idea
> of trying the PA deck on a seperate supply is interesting. I also thought of
> swapping PA decks with the spare TR-7 to see what happens.
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> you're a tube guy, but I do appreciate the suggestions. I'll be able to tinker
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> I think my next project will be to re-cap all of the electrolytics in this
> radio. It's probably not at all related to this problem, but I do see a couple
> of other areas that could benefit from it.
>
> 73
>
> -Jim
> NU0C
>

>
>
> On Sun, 11 May 2014 10:35:53 -0400, Garey Barrell k4oah@...
> [DrakeRadio] wrote:
>
>> Jim -
>>
>> You DO find interesting problems! :-)
>>
>> I don't think it's related to just 'YOUR' radio. I've seen several that want to take off
on
>> 40M. I suspect that's the maximum gain point of the PA design, so takes off first??
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>> RF getting back into the '723 in the PS-7? Do you have anything plugged into the ACCY
jack?
>> It's connected directly to the current sense input of the '723.
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>> Try running the PA ONLY from a supply other than the PS-7. And vice versa....
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>>>> However, in preparation for running W1AW/0 on 17 Meters this weekend, I find
>>>> that it hasn't left. It's just moved. When I run the rig into my Butternut
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>>>> and below 18.1 MHz on a spectrum analyzer and I can see their effect on the SWR
>>>> meter. What's happening varies with mode and power level.
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>>>> Driving a resistive load, such as my DL-1000 or (thankfully) the 50 Ohm
>>>> resistive load in the input circuit of my NCL-2000, everything is clean and
>>>> happy. So I'm not off the air on 17 Meters, I just need to run QRO. :)
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>>>> between 9 and 10 MHz. So what's 9 x 2? 18! Is it a coincidence that the problem
>>>> has moved to17 Meters? Inquiring minds want to know...
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>>>> 73
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>>>> -Jim
>>>> NU0C
>>>

20889. Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:24:25 UTC
From: Roger Roger
Topic: 20876 Message: 20889

thanks Evan I have seen those but was wondering if anyone else would want
to get something going through the group.

--
W5RJH

[Non-text portions of this message have been removed]

20890. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 17:38:02 UTC
From: Jim Shorney
Topic: 20852 Message: 20890

Yep, I get that. But connected to a PS and a dummy load on the bench is about as different from being integrated into the radio system as you can get, and I was able to make it oscillate there too. That would seem to pretty much narrow it down to what's inside the box.

73

-Jim
NU0C

On Sun, 11 May 2014 13:17:24 -0400, Garey Barrell k4oah@...
[DrakeRadio] wrote:

>Jim -
>
>OK. Well I spent quite a few years as an RFI/EMI engineer for NASA, and I'll tell you there are
>LOTS of ways for RF to get where it's not supposed to!! :-)
>
>Don't forget there is 'conducted' interference on power and control leads as well as 'radiated'.
>
>73, Garey - K4OAH
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>Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> filtering may figure in there somehow, because 30 Meters is rock stable and it
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>> I don't think it's supply related, either. I do have my SP-75 plugged in to the
>> accessory jack. Although I can get the PS-7 to shut down on 80 Meters if I turn
>> the CW level "up to 11", that's a different issue. My bench test supply is an
>> Astron 35M, and the radio will take off just as happily on that one. The idea
>> of trying the PA deck on a seperate supply is interesting. I also thought of
>> swapping PA decks with the spare TR-7 to see what happens.
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>> you're a tube guy, but I do appreciate the suggestions. I'll be able to tinker
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>> re-lube the PTO in the spare rig before I can swap it into the system anyway.
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>> radio. It's probably not at all related to this problem, but I do see a couple
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>>> It's connected directly to the current sense input of the '723.
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--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20891. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 18:23:41 UTC
From: Garey Barrell
Topic: 20852 Message: 20891

Jim -

Yes, that's a good setup. Just don't forget pulses of current (DC and RF) to the PA go through
the same cable as the the current to the 'rest of the radio'. There are 'common mode' interactions.

By the way, my work experience (design) was 100% solid state.... Mostly transmitters, just VHF
and UHF. Nothing much over 40W........

Radio astronomy don't count, the _IF_ was at C-Band (4.5 GHz). Up converter from L-Band (1.2
GHz), and down converters from Ku (15.5 GHz) and K (22 GHz). Of course, all cryogenically cooled down to ~10 degrees Kelvin, so not real pertinent here!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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> Ham Radio NU0C
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> TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain
3750, IBM PS/2 - all vintage, all the time!
>
> "Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."
>
> HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
> http://incolor.inetnebr.com/jshorney
> http://www.nebraskaghosts.org
>
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>
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> ------------------------------------
>
> Yahoo Groups Links
>
>
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>

20892. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:00:54 UTC
From: Paddy Ryan
Topic: 206 Message: 20892

Gary

Thank you for clarifying this. The FS4 manual clearly states connecting the screen to the chassis and the centre to the xtal socket. I must admit that I connected to the two xtal sockets with a home made ‘plug’ as you described but now I know better and will modify my plug to go to ground and the lower pin of the xtal socket on my R4C.

73 de Pat/EI7CN

From: mailto:DrakeRadio@yahoogroups.com
Sent: Sunday, May 11, 2014 3:10 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS-4 Question

Evan/Scott -

It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the 'common' lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which becomes a
'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid. This means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the LOWER
pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this setup,
switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer. The
FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator, reducing
the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone crystals,
which doesn't take much!

Some think they can make up a neat little connector from a dead crystal, and plug it into a specific XTAL socket, and then 'choose' that position when they want to use the FS-4. This scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives the
PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back on
crystal control! NOT! This way, when you switch away from the 'specific' socket back to NORM,
you still have the shield of the coax (ground!) connected to the INPUT of the BAND oscillator.... Drags it down, AND may make the crystal you then select somewhat 'squirrelly'.
Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray loads.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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>> Scott,
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>> That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.
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>> Evan
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>> \-----Original Message-----
>> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>> Cc: k9sgg <k9sgg@...>
>> Sent: Sat, May 10, 2014 9:29 pm
>> Subject: Re: [DrakeRadio] FS-4 Question
>>
>> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
>>
>> On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:
>>
>>
>> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>>
>>

[Non-text portions of this message have been removed]

20893. Re: [DrakeRadio] Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:03:23 UTC
From: L L bahr
Topic: 20876 Message: 20893

I am one who hates nets for a particular radio. Not much gets accomplished, no time for anything, can't hear everybody, some monopolize the net, those who are interesting don't speak. Just a bunch of wasted time in my estimation. I am sure others will disagree and some will agree. It's just you will never hear me on one of them. They are impractical and time wasters. No depth to any of them.
Lee, w0vt

[Non-text portions of this message have been removed]

20894. Re: [DrakeRadio] Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:19:48 UTC
From: WD8ARZ
Topic: 20876 Message: 20894

Monitoring 7238 lsb for the Drake Net. Frequency is quite and the QRN is gone.

73 from Bill - WD8ARZ
South Bend, Indiana

On 5/11/2014 1:05 PM, Evan Rolek k9sqg@... [DrakeRadio] wrote:
> Drake Technical Net
> Sunday
>
> 4 pm Eastern time
>
> 7238 +/- QRM
> Sometimes a pre-net, and sometimes a post-net.
>
>
> Drake and Antique Tube Gear Net
> Tuesday
> 8 pm Eastern time
> 3865 +/- QRM

20895. Re: [DrakeRadio] Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:21:54 UTC
From: Gary Woods
Topic: 20876 Message: 20895

On Sun, 11 May 2014 15:03:23 -0400 (EDT), you wrote:

>I am one who hates nets for a particular radio.

And I confess that I have learned useful tricks with my radio, and enjoy the expertise of others. I'll check in if at all possible, though until I get some hi-fi interference resolved, I won't be running my hi-tech (TS-590) and vintage (Johnson Viking KW) combo. Humbly suggest NCS be taken by whoever can hear the most stations.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4570 / Virus Database: 3931/7474 - Release Date: 05/11/14

20896. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:39:21 UTC
From: Whitebear1122
Topic: 206 Message: 20896

Garey, Sherwood may still be selling it. I had seen this recently on Sherwoods webpage and just checked it today to copy it and post here. I wonder if anyone here has recently bought this set up. I don't plan to reach around back and disconnect it when I use the internal crystals. 73, Scott WA9WFA

FS-4 Interface Kit

The Drake FS-4 band synthesizer provides the R-4C (and some other Drake models) with general coverage. The stock connection to the radio was a kluge, requiring the user plug a short cable into an accessory band crystal socket. Drake recommended unplugging the connection when the normal band crystals were used, as the feed loaded down the injection oscillator. For over 20 years we have offered the FS-4 Interface Kit that solves this connection problem. The kit consists of a TO-5 RF relay, and several RCA jacks. When installed, turning on the power to the FS-4 keys the relay, switching out the band crystal bank, and injecting the FS-4 signal.

FS-4 Kit: $69.00 US
It is field installable. Installation takes about 2 hours.
If we install the kit while servicing your R-4C, the labor charge is $49.00 US

On May 11, 2014, at 12:03 PM, Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Rob Sherwood offered a relay kit back when the FS-4 was more common. Worked very well, and a
> lot easier than reaching around to the back of the radio!!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

[Non-text portions of this message have been removed]

20897. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:43:51 UTC
From: Jim Shorney
Topic: 20852 Message: 20897

Hi Garey,

On Sun, 11 May 2014 14:23:41 -0400, Garey Barrell k4oah@...
[DrakeRadio] wrote:

>Yes, that's a good setup. Just don't forget pulses of current (DC and RF) to the PA go through
>the same cable as the the current to the 'rest of the radio'. There are 'common mode' interactions.

My generic cable is "special". I built it with that biga$$ wire that GE provided for trunk mounting the 110 Watt Rangr mobile rigs. My run is quite a bit less than trunk-to-engine compartment, and voltage drop is nil. I've also isolated the high current B+ feed, with more mundane wire for the low current rail. It doesn't get much better than this for a home-made TR-7 cable. The negative wire is still common to both, but it still works pretty well. To fully isolate the high current would require surgery inside the radio, and I haven't got that ambitious. Any idea what the current rating per pin is on the power connector?

The PS-7 cable is pretty robust as it is, but I also isolated the high current rail there.

>Radio astronomy don't count, the _IF_ was at C-Band (4.5 GHz). Up converter from L-Band (1.2
>GHz), and down converters from Ku (15.5 GHz) and K (22 GHz). Of course, all cryogenically
>cooled down to ~10 degrees Kelvin, so not real pertinent here!! :-)

Oooooh, you had all of the FUN toys!

73

-Jim
NU0C

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

20898. Re: [DrakeRadio] Yahoo drake radios group net?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 19:48:25 UTC
From: Roger Roger
Topic: 20876 Message: 20898

do you think Saturday at night would be good Ray? if we did it mid evening we could get on 40 somewhere. Ill listen around and find a good spot with alot of room around it above 7175 so generals can get involved to. If you have any suggestions that would be great. It seems like every time you tune around you hear a collins net going on but not near enough Drake nets. Everybody loves em so I think it would be fun. And really great if we could get some of the guys like Garey, Steve and Jim to do some tech tips. I think it would be better to have it just like a rag chew not a normal check-in net. What do you think?

--
W5RJH

[Non-text portions of this message have been removed]

20899. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 20:00:03 UTC
From: Garey Barrell
Topic: 206 Message: 20899

Pat -

I should clarify this a bit further... I "think" the C-Line is not consistent on which pin is
'common' on the crystal sockets. I don't have one open right now, but I seem to recall that the
C-Line uses a PC board for those sockets, rather than individually wired as in the earlier receivers.

The pin you want to connect the 'HOT' lead from the FS-4 to is the one that is common to ALL the
crystals. It looks like it could be either the 'top' - OR - the 'bottom' pin depending upon which row it's in. Of course it made no difference for crystals, so didn't matter then.

If you can't see which pin is which, an ohmmeter check should show 0 ohms between two adjacent
pins. Either of those will work as will any others in that 'row'. The pin you want is the one
that is common to the one next to it!!!! I'm confusing myself... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Paddy Ryan' pei7cn@... [DrakeRadio] wrote:
> Gary
>
> Thank you for clarifying this. The FS4 manual clearly states connecting the screen to the chassis and the centre to the xtal socket. I must admit that I connected to the two xtal sockets with a home made ‘plug’ as you described but now I know better and will modify my plug to go to ground and the lower pin of the xtal socket on my R4C.
>
> 73 de Pat/EI7CN
>
> From: mailto:DrakeRadio@yahoogroups.com
> Sent: Sunday, May 11, 2014 3:10 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] FS-4 Question
>
>
> Evan/Scott -
>
> It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the

'common'
> lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which
becomes a
> 'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid.
This
> means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the
LOWER
> pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this
setup,
> switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer.
The
> FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator,
reducing
> the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone
crystals,
> which doesn't take much!
>
> Some think they can make up a neat little connector from a dead crystal, and plug it into
a
> specific XTAL socket, and then 'choose' that position when they want to use the FS-4.
This
> scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives
the
> PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back
on
> crystal control! NOT! This way, when you switch away from the 'specific' socket back to
NORM,
> you still have the shield of the coax (ground!) connected to the INPUT of the BAND
> oscillator.... Drags it down, AND may make the crystal you then select somewhat
'squirrelly'.
> Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray
loads.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Whitebear1122 whitebear1122@... [DrakeRadio] wrote:
>> Evan, I first noticed it when I switched back to the NORM position while the FS-4 was
plugged in. I was hearing signals further outside the normal passband. I would switch the
FS-4 back in and bandwidth would be normal. Yes I have the correct polarity because I first
inserted it in a position where signals were greatly attenuated. I was advised of this
possiiblity. I switched to the other crystal position and signals were now normal. I'm
pleasantly surprised with the performance of the FS-4. Guess I was expecting it to be
marginal or crappy. Not at all, it is very good and I'm cruising the WARC bands, and
listening to 20m right now at 10:20 PM . 73, Scott WA9WFA
>>
>>

>> On May 10, 2014, at 10:01 PM, Evan Rolek <k9sqg@...> wrote:
>>
>>> Scott,
>>>
>>> That is interesting. Not sure I have an explanation for adverse effects. I do know, however, that the plug from the FS-4 has to be inserted with the proper polarity in the R4C.
>>>
>>> 73,
>>>
>>> Evan
>>>
>>>
>>> \-----Original Message-----
>>> From: Whitebear1122 whitebear1122@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>>> To: DrakeRadio <DrakeRadio@yahoogroups.com>
>>> Cc: k9sgg <k9sgg@...>
>>> Sent: Sat, May 10, 2014 9:29 pm
>>> Subject: Re: [DrakeRadio] FS-4 Question
>>>
>>> Hey Evan and all, Thanks for your comments on your experience with the FS-4. I guess I was thinking that this 40 year old frequency synthesizer would be generating a lot more noise than newer devices. Like you, my new FS-4 works fabulous with no issues. I'm very pleased with it. I do notice that there is an effect on signals in the NORM position while the FS-4 is attached. Thank you. 73, Scott WA9WFA
>>>
>>> On Apr 27, 2014, at 2:25 PM, Evan Rolek <k9sqg@...> wrote:
>>>
>>>
>>> I used to use an FS-4 with my C-line. Worked fine with no issues. Can't imagine how the FS-4 could load the internal crystals since the FS-4 is functionally removed from the circuit when the crystal switch is on other positions.
>>>
>>>
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>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20900. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 20:04:22 UTC
From: Whitebear1122
Topic: 206 Message: 20900

Thanks Garey for the detailed description of the circuit. Yes I can understand how the unpowered FS-4 output buffer or amplifier circuit hanging on the R-4C oscillator would affect it. I just took a peek at Mouser.com and they have a ton of RF relays in tiny packages that are cheap, under $6. Just need a coil that is compatible with what ever dc voltages are available in the FS-4. The coil currents are pretty low, 50 ma range. Wiring would be easy, just remove the FS-4 output from the RCA jack, run it through the relay, and connect the relay output to the RCA jack. Relay would activate whenever power is turned on.

73, Scott WA9WFA

On May 11, 2014, at 9:10 AM, Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Evan/Scott -
>
> It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the 'common'
> lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which becomes a
> 'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid. This
> means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the LOWER
> pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this setup,
> switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer. The
> FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator, reducing
> the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone crystals,
> which doesn't take much!
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> Some think they can make up a neat little connector from a dead crystal, and plug it into a
> specific XTAL socket, and then 'choose' that position when they want to use the FS-4. This
> scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives the
> PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back on
> crystal control! NOT! This way, when you switch away from the 'specific' socket back to NORM,
> you still have the shield of the coax (ground!) connected to the INPUT of the BAND
> oscillator.... Drags it down, AND may make the crystal you then select somewhat 'squirrelly'.

> Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray loads.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>

20901. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 20:06:35 UTC
From: Whitebear1122
Topic: 206 Message: 20901

On my R-4C it's the lower pin. I first tried the upper pin and it didn't work right, moved it to the lower pin and it's working well. I ran the coax shield straight down to the chassis ground stud below the crystal area. 73, Scott WA9WFA

On May 11, 2014, at 3:00 PM, "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Pat -
>
> I should clarify this a bit further... I "think" the C-Line is not consistent on which pin is
> 'common' on the crystal sockets. I don't have one open right now, but I seem to recall that the
> C-Line uses a PC board for those sockets, rather than individually wired as in the earlier
> receivers.
>
> The pin you want to connect the 'HOT' lead from the FS-4 to is the one that is common to ALL the
> crystals. It looks like it could be either the 'top' - OR - the 'bottom' pin depending upon
> which row it's in. Of course it made no difference for crystals, so didn't matter then.
>
> If you can't see which pin is which, an ohmmeter check should show 0 ohms between two adjacent
> pins. Either of those will work as will any others in that 'row'. The pin you want is the one
> that is common to the one next to it!!!! I'm confusing myself... :-)
>
> 73, Garey - K4OAH
> Glen Allen, VA
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>>
>> 73 de Pat/EI7CN

>>

20902. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 20:52:06 UTC
From: Garey Barrell
Topic: 20852 Message: 20902

Jim -

The 2400 Series Cinch-Jones connectors are rated at 15A per contact. That is for the 'real' C-J _phenolic_ body. I don't know what the MOLEX type are rated, but I believe they just have
a plastic body.

The 300 Series are 10A per contact.

Keep us posted..... I would be surprised if the culprit turns out to be an electrolytic. My next guess would be lead routing/card grounding. Those little copper springy things aren't real
consistent. You'll also notice if you open a newer TR-7 that there are a LOT more of them than
there were in the early ones!! :-)

Can you get it to oscillate 'under control'? Where it'll oscillate without destroying itself?
Will it oscillated without the PA?? That would allow you to probe for hot spots. If you can at
least control it you could go through with a few ground clips. Just a thought, have you done
the 'screwdriver tour' in a while???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:
> Hi Garey,
>
> On Sun, 11 May 2014 14:23:41 -0400, Garey Barrell k4oah@...
> [DrakeRadio] wrote:
>
>> Yes, that's a good setup. Just don't forget pulses of current (DC and RF) to the PA go through
>> the same cable as the the current to the 'rest of the radio'. There are 'common mode' interactions.
>
> My generic cable is "special". I built it with that biga$$ wire that GE
> provided for trunk mounting the 110 Watt Rangr mobile rigs. My run is quite a
> bit less than trunk-to-engine compartment, and voltage drop is nil. I've also
> isolated the high current B+ feed, with more mundane wire for the low current
> rail. It doesn't get much better than this for a home-made TR-7 cable. The

> negative wire is still common to both, but it still works pretty well. To fully
> isolate the high current would require surgery inside the radio, and I haven't
> got that ambitious. Any idea what the current rating per pin is on the power
> connector?
>
> The PS-7 cable is pretty robust as it is, but I also isolated the high current
> rail there.
>
>> Radio astronomy don't count, the _IF_ was at C-Band (4.5 GHz). Up converter from L-Band
(1.2
>> GHz), and down converters from Ku (15.5 GHz) and K (22 GHz). Of course, all
cryogenically
>> cooled down to ~10 degrees Kelvin, so not real pertinent here!! :-)
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> Oooooh, you had all of the FUN toys!
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> 73
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> -Jim
> NU0C
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> "A deep understanding of reality is exactly the same thing as laziness." - Wally,
"Dilbert"
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> Yahoo Groups Links
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20903. Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 21:02:01 UTC
From: Mark Gilger
Topic: 20876 Message: 20903

We had 19 check-ins today under terrible band conditions. I think there were 5 people with technical questions. Everyone seemed to have a good time.

73's,
Mark, WB0IQK

20904. Re: [DrakeRadio] Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 21:03:46 UTC
From: Charles Ahlgren
Topic: 20876 Message: 20904

It would be nice to see something get started here on the left coast.

We have a nice group of operators that have a Collins Net on Friday evenings. True, not much discussion about the radios, but a nice time is had just the same. Gives everyone an excuse to fire up the rig.

Just an idea....

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Sun, May 11, 2014 at 12:19 PM, WD8ARZ wd8arz@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

>
>
> Monitoring 7238 lsb for the Drake Net. Frequency is quite and the QRN is
> gone.
>
> 73 from Bill - WD8ARZ
> South Bend, Indiana
>
>
> On 5/11/2014 1:05 PM, Evan Rolek k9sqg@... [DrakeRadio] wrote:
> > Drake Technical Net
> > Sunday
> >
> > 4 pm Eastern time
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> > Sometimes a pre-net, and sometimes a post-net.
> >
> >
> > Drake and Antique Tube Gear Net
> > Tuesday
> > 8 pm Eastern time
> > 3865 +/- QRM
>
>
>

[Non-text portions of this message have been removed]

20905. Re: [DrakeRadio] Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 21:07:33 UTC
From: Roger Roger
Topic: 20876 Message: 20905

Well im in the south (Louisiana) but if I can hear yall the L7 or the L4B should let you hear me!

--
W5RJH

[Non-text portions of this message have been removed]

20906. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:16:30 UTC
From: Garey Barrell
Topic: 206 Message: 20906

Scott -

The catch is you need to disconnect it at the R-4C end of the cable.! The point is to get that
cable capacitance off, so it doesn't look like a bypass capacitor. RG-174 is ~ 25 pF/ft, so that's like connecting a 50-60 pF cap right across the input to the amp. This is what upsets
the applecart!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 whitebear1122@... [DrakeRadio] wrote:
> Thanks Garey for the detailed description of the circuit. Yes I can understand how the unpowered FS-4 output buffer or amplifier circuit hanging on the R-4C oscillator would affect it. I just took a peek at Mouser.com and they have a ton of RF relays in tiny packages that are cheap, under $6. Just need a coil that is compatible with what ever dc voltages are available in the FS-4. The coil currents are pretty low, 50 ma range. Wiring would be easy, just remove the FS-4 output from the RCA jack, run it through the relay, and connect the relay output to the RCA jack. Relay would activate whenever power is turned on.
>
> 73, Scott WA9WFA
>
>
> On May 11, 2014, at 9:10 AM, Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>
>> Evan/Scott -
>>
>> It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the 'common'
>> lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which becomes a
>> 'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid. This
>> means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the LOWER
>> pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this setup,
>> switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer. The
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>> the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone crystals,
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>>
>> Some think they can make up a neat little connector from a dead crystal, and plug it into a
>> specific XTAL socket, and then 'choose' that position when they want to use the FS-4. This
>> scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives the
>> PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're back on
>> crystal control! NOT! This way, when you switch away from the 'specific' socket back to NORM,
>> you still have the shield of the coax (ground!) connected to the INPUT of the BAND
>> oscillator.... Drags it down, AND may make the crystal you then select somewhat 'squirrelly'.
>> Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray loads.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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>> <www.k4oah.com>
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> Yahoo Groups Links
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20907. Re: [DrakeRadio] Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:33:21 UTC
From: john
Topic: 20876 Message: 20907

But other than that Lee, how do you like 'em ?

73 and enjoy your Drakes!

John K5MO

At 03:03 PM 5/11/2014, 'L L bahr ' pulsarxp@... [DrakeRadio] wrote:

>I am one who hates nets for a particular radio.Â Not much gets
>accomplished, no time for anything, can't hear everybody, some monopolize
>the net, those who are interesting don't speak.Â Just a bunch of wasted
>time in my estimation.Â I am sure others will disagree and some will
>agree.Â It's just you will never hear me on one of them.Â They are
>impractical and time wasters.Â No depth to any of them.
>Lee, w0vt
>
>
>
>
>
>
>[Non-text portions of this message have been removed]
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>Yahoo Groups Links
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III

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

20908. Re: [DrakeRadio] FS-4 Question

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:39:25 UTC
From: Paddy Ryan
Topic: 206 Message: 20908

Gary

Thanks again. I will connect it up again and check and will report the results with the serial no of the R4C..I have 2 and will check each one..I also have an SPR-4 and an R4 and a 2B..it will be interesting to see what happens with them all now that I know the correct way to connect them,hi!

73 de Pat/EI7CN

From: mailto:DrakeRadio@yahoogroups.com
Sent: Sunday, May 11, 2014 11:16 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] FS-4 Question

Scott -

The catch is you need to disconnect it at the R-4C end of the cable.! The point is to get that
cable capacitance off, so it doesn't look like a bypass capacitor. RG-174 is ~ 25 pF/ft, so that's like connecting a 50-60 pF cap right across the input to the amp. This is what upsets
the applecart!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Whitebear1122 whitebear1122@... [DrakeRadio] wrote:
> Thanks Garey for the detailed description of the circuit. Yes I can understand how the unpowered FS-4 output buffer or amplifier circuit hanging on the R-4C oscillator would affect it. I just took a peek at Mouser.com and they have a ton of RF relays in tiny packages that are cheap, under $6. Just need a coil that is compatible with what ever dc voltages are available in the FS-4. The coil currents are pretty low, 50 ma range. Wiring would be easy, just remove the FS-4 output from the RCA jack, run it through the relay, and connect the relay output to the RCA jack. Relay would activate whenever power is turned on.
>
> 73, Scott WA9WFA
>
>
> On May 11, 2014, at 9:10 AM, Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>
>> Evan/Scott -
>>

>> It's pretty simple..... The 'intended' input for the FS-4 to the R-4B/C is to the
'common'
>> lead to ALL the crystal sockets. This is the Emitter of the BAND oscillator, which
becomes a
>> 'Grounded Grid' (ok, 'Grounded Base') amplifier with its output to the PreMixer Grid.
This
>> means a single pin, (coax center conductor) goes into ANY of the crystal sockets to the
LOWER
>> pin. Shield of the coax goes to the chassis, NOT to the 'other' crystal pin. With this
setup,
>> switch off of NORM, and you've got a nice little amplified BAND signal for the PreMixer.
The
>> FS-4, turned off, is just a capacitive load across the INPUT of the BAND oscillator,
reducing
>> the gain and quite possibly 'encouraging' strange behavior from those 3rd overtone
crystals,
>> which doesn't take much!
>>
>> Some think they can make up a neat little connector from a dead crystal, and plug it
into a
>> specific XTAL socket, and then 'choose' that position when they want to use the FS-4.
This
>> scenario connects the output of the FS-4 to the OUTPUT of the BAND oscillator and drives
the
>> PreMixer Grid via the BAND output transformer, backwards! Switch to NORM, and you're
back on
>> crystal control! NOT! This way, when you switch away from the 'specific' socket back to
NORM,
>> you still have the shield of the coax (ground!) connected to the INPUT of the BAND
>> oscillator.... Drags it down, AND may make the crystal you then select somewhat
'squirrelly'.
>> Again, these are 3rd overtone crystals for the most part, and don't take kindly to stray
loads.
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
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[Non-text portions of this message have been removed]

20909. Re: [DrakeRadio] Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:45:22 UTC
From: L L bahr
Topic: 20876 Message: 20909

Why do you ask, John?

Lee, w0vt

But other than that Lee, how do you like 'em ?

73 and enjoy your Drakes!

John K5MO

20910. Progress!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:48:29 UTC
From: L L bahr
Topic: 20876 Message: 20910

Just thought I would let everyone in the Drake world know I changed 5 pan head screws on one of my Drake rigs today as the old ones had a bit of tarnish on them. I'll let everyone know when I get more replaced over time. The we will go on to feet and bumpers!
Lee, w0vt

20911. Re: [DrakeRadio] Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-11 22:51:51 UTC
From: L L bahr
Topic: 20876 Message: 20911

Yea, but did they get answers? Could have gone down to Radio Shack and done that without firing up the Drake.
Lee, w0vt

We had 19 check-ins today under terrible band conditions. I think
there were 5 people with technical questions. Everyone seemed to have
a good time.

73's,
Mark, WB0IQK

[Non-text portions of this message have been removed]

20912. Re: Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 01:03:39 UTC
From: Mark Gilger
Topic: 20876 Message: 20912

Lee
In fact all of them got a good answer to their questions. You should
listen sometime.

Mark, WB0IQK

20913. Steve Hageman Modernized Drake FS-4 project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 01:51:40 UTC
From: n1ohn@...
Topic: 20913 Message: 20913

Hello all :)

Anyone have a copy of the Steve Hageman Modernized Drake FS-4 project that was in the June Qst 2004 that they can email me?

Thanks
Dave

[Non-text portions of this message have been removed]

20914. Re: [DrakeRadio] Steve Hageman Modernized Drake FS-4 project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 02:05:36 UTC
From: Dino Papas
Topic: 20913 Message: 20914

Dave - this may be what you?re looking for?from my project queue!

73 - Dino KL0S

On May112014, at 2151 PM, n1ohn@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Hello all :)
>
>
> Anyone have a copy of the Steve Hageman Modernized Drake FS-4 project that was in the June Qst 2004 that they can email me?
>
>
> Thanks
> Dave

[Non-text portions of this message have been removed]

20915. Re: [DrakeRadio] Steve Hageman Modernized Drake FS-4 project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 02:08:30 UTC
From: Dino Papas
Topic: 20913 Message: 20915

Sorry for the bandwidth…I removed the Drake group address from my reply to Dave but my mail client saw fit for some reason to include it anyway…computers, can't live with them or without them!

Dino KL0S

On May112014, at 2205 PM, Dino Papas kl0s@... [DrakeRadio] <DrakeRadio@...m> wrote:

> Dave - this may be what you're looking for…from my project queue!
>
> 73 - Dino KL0S
>
>
>
> On May112014, at 2151 PM, n1ohn@yahoo.com [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>
>> Hello all :)
>>
>>
>> Anyone have a copy of the Steve Hageman Modernized Drake FS-4 project that was in the June Qst 2004 that they can email me?
>>
>>
>> Thanks
>> Dave

20916. Re: [DrakeRadio] Steve Hageman Modernized Drake FS-4 project

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 02:17:57 UTC
From: David Phillips
Topic: 20913 Message: 20916

Yes that's it thank you Dino!!!!

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

20917. Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 03:09:05 UTC
From: Paul Dulaff
Topic: 20852 Message: 20917

Jim

FWIW, I have S/N's 1XXX, 6XXX and 9XXX TR-7's. I have had to work on all 3 units for various problems and what Gary is noting does make sense as over the production cycle extra grounding was added to the boards in the cage. My 1XXX unit had an earlier generation 2nd mixer board and this board does like to take off if the grounding tabs are not secure. Ended up not so sensitive on the later version of the 2nd mixer board.

I have 1XXX and 9XXX open on the bench just now so if you need a reading to compare to your unit, I may be able to assist.

Do you have the first or second generation power amplifier ?

Paul - WB2NMI

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com, Jim Shorney <jshorney@...>
Sent: Sun, 11 May 2014 16:52:06 -0400 (EDT)
Subject: Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Jim -

The 2400 Series Cinch-Jones connectors are rated at 15A per contact. That is for the 'real'

C-J _phenolic_ body. I don't know what the MOLEX type are rated, but I believe they just have

a plastic body.

The 300 Series are 10A per contact.

Keep us posted..... I would be surprised if the culprit turns out to be an electrolytic. My

next guess would be lead routing/card grounding. Those little copper springy things aren't real

consistent. You'll also notice if you open a newer TR-7 that there are a LOT more of them than

there were in the early ones!! :-)

Can you get it to oscillate 'under control'? Where it'll oscillate without destroying itself?

Will it oscillated without the PA?? That would allow you to probe for hot spots. If you can at

least control it you could go through with a few ground clips. Just a thought, have you done

the 'screwdriver tour' in a while???

73, Garey - K4OAH

Glen Allen, VA

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<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:

> Hi Garey,

>

> On Sun, 11 May 2014 14:23:41 -0400, Garey Barrell k4oah@mindspring.com

> [DrakeRadio] wrote:

>

>> Yes, that's a good setup. Just don't forget pulses of current (DC and RF) to the PA go through

>> the same cable as the the current to the 'rest of the radio'. There are 'common mode' interactions.

>

> My generic cable is "special". I built it with that biga$$ wire that GE

> provided for trunk mounting the 110 Watt Rangr mobile rigs. My run is quite a

> bit less than trunk-to-engine compartment, and voltage drop is nil. I've also

> isolated the high current B+ feed, with more mundane wire for the low current

> rail. It doesn't get much better than this for a home-made TR-7 cable. The

> negative wire is still common to both, but it still works pretty well. To fully

> isolate the high current would require surgery inside the radio, and I haven't

> got that ambitious. Any idea what the current rating per pin is on the power

> connector?

>

> The PS-7 cable is pretty robust as it is, but I also isolated the high current

> rail there.

>

>> Radio astronomy don't count, the _IF_ was at C-Band (4.5 GHz). Up converter from L-Band (1.2

>> GHz), and down converters from Ku (15.5 GHz) and K (22 GHz). Of course, all cryogenically

>> cooled down to ~10 degrees Kelvin, so not real pertinent here!! :-)

>

> Oooooh, you had all of the FUN toys!

>

> 73

>

> -Jim

> NU0C

>

>

> --

>

> "A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

>

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[Non-text portions of this message have been removed]

20918. T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 04:20:02 UTC
From: David Nichols
Topic: 20918 Message: 20918

My 40 and 20 meter frequencies are way off. I thought I would ask if I had missed some adjustment before I order more crystals. As Im sure some of you know, they dont come cheap. I got the new one installed in the TR-4cw for 40 meters and it is right on now.
So, back to the T-4XB. 75, 15, and 10 meters are good.

On 40 meters, when the dial is set to 7.0, I get 5.7 MHz out. I didnt notice anything odd when I was doing the alignment.
On 20 meters, when the dail is set to 14.0, I get 11.3 MHz out. The back trimmers for this band are as tight as I can get them. Thats when I looked a little deeper.
What has me really wondering is that I swapped the 20 meter xtal with my R-4B and got the same results. I just dont see both crystals being equally off when they came from totally different environments. But who knows? I have not put the signal gen to the receiver yet to see if its off.
David - KX7C

[Non-text portions of this message have been removed]

20919. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 04:39:47 UTC
From: David Nichols
Topic: 20918 Message: 20919

Signal gen on the receiver says the crystals are ok in the R-4B... So what is up with the xmiter??
David - KX7C Ill sleep on it..

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 11, 2014 9:20 PM
Subject: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

My 40 and 20 meter frequencies are way off. I thought I would ask if I had missed some adjustment before I order more crystals. As Im sure some of you know, they dont come cheap. I got the new one installed in the TR-4cw for 40 meters and it is right on now.
So, back to the T-4XB. 75, 15, and 10 meters are good.

On 40 meters, when the dial is set to 7.0, I get 5.7 MHz out. I didnt notice anything odd when I was doing the alignment.
On 20 meters, when the dail is set to 14.0, I get 11.3 MHz out. The back trimmers for this band are as tight as I can get them. Thats when I looked a little deeper.
What has me really wondering is that I swapped the 20 meter xtal with my R-4B and got the same results. I just dont see both crystals being equally off when they came from totally different environments. But who knows? I have not put the signal gen to the receiver yet to see if its off.
David - KX7C

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20920. Serial numbers, was Re: [DrakeRadio] TR-7 TX oscillation vexing me again

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 05:48:53 UTC
From: geoffrey mendelson
Topic: 20852 Message: 20920

On 5/12/2014 6:09 AM, Paul Dulaff pdulaff@... [DrakeRadio] wrote:
>
>
> FWIW, I have S/N's 1XXX, 6XXX and 9XXX TR-7's. I have had to work on
> all 3 units for various problems and what Gary is noting does make
> sense as over the production cycle extra grounding was added to the
> boards in the cage. My 1XXX unit had an earlier generation 2nd mixer
> board and this board does like to take off if the grounding tabs are
> not secure. Ended up not so sensitive on the later version of the 2nd
> mixer board.
>
The TR-7 I am trying to fix had its serial number covered over with some sort of black paint. An Israeli ID number of the old format (not used in at least 20 years) was carved into it. I expect that since that police in the US told people to scratch out serial numbers and carve in their Social Security numbers to deter theft, it was done by someone who came from the US in the 1970's or 1980's with their TR-7.

Is there any other way to determine useful information, such as what generation which boards are, and so on?

Is there a hidden second copy of the serial number, like the VIN on cars?

Did anyone know a US ham who moved to Israel around then who was a big RTTY user and modified his TR7 for it?

TIA

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20921. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 14:08:54 UTC
From: Garey Barrell
Topic: 20918 Message: 20921

David -

Those crystals are not off, they are OFF!! As in they're NOT running at all. :-) You'll notice that if you turn the dial, those two frequencies you note DON'T move..... Hmmmmm.

Now, if you've 'tightened up the loose screws' on those trimmers, you may have detuned the PreMixer so far that IT'S not running.

Anyway, those two frequencies you mention??? The first one is actually 5.645 MHz, and is the
CAR OSC running through because there is no PreMixer signal at V2. The second one, the second
harmonic of the CAR OSC, same reason. You'll notice that the PreSelector dial is nowhere near
the band segments.....

So. First step is to back off on those trimmers. None of the trimmers in this radio need to be
'tight'. A few may end up pretty 'loose', but none tight. Put your counter near the BAND
oscillator, the transistor is on the board right near the crystal sockets under the chassis.
Set the MODE switch to TUNE, with GAIN at 0 (MAX CCW). Look for signals at 18.1 MHz (40M) and
25.1 MHz (20M). Try for the one at 32.1 MHz (15M) first, since we know it's working. If one or
both are actually there, put your counter (or preferably a scope if you have one) over on T5.
Set the PreSelector control to within the marked segment for each of the two bands as
appropriate. With the PTO dial set to 0.000, you should find 12.645 MHz on 40M, and 26.645 MHz
on 15M. Unless you have adjusted T4 and/or T5, you don't need to touch them, yet. Adjust the
two _INJ TRIM_ trimmers (frontmost) for maximum signal on each of the bands at those two frequencies.

Now, those two rearmost trimmers _RF TRIM_ on each band need to be adjusted back from where you tuned them when you were trying to tune them to the wrong frequencies, (well outside their
design goal!) Again, with the PreSelector set appropriately, and MODE switch to TUNE, GAIN to
about 10 o'clock, and adjust them for maximum output. Set the LOAD control to 0, (CCW,) and
WATCH for drive to the PA, the PLATE meter will JUMP up suddenly when you get the trimmers in
the correct range, so be prepared to DIP the PA immediately and reduce the GAIN for no more than
150 mA at the DIP.

These adjustments will all be refined as part of the alignment procedure, once everything is
working! Watch the PLATE current, DIP the final......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> My 40 and 20 meter frequencies are way off. I thought I would ask if I had missed some adjustment before I order more crystals. As Im sure some of you know, they dont come cheap. I got the new one installed in the TR-4cw for 40 meters and it is right on now.
> So, back to the T-4XB. 75, 15, and 10 meters are good.
>
> On 40 meters, when the dial is set to 7.0, I get 5.7 MHz out. I didnt notice anything odd when I was doing the alignment.
> On 20 meters, when the dail is set to 14.0, I get 11.3 MHz out. The back trimmers for this band are as tight as I can get them. Thats when I looked a little deeper.
> What has me really wondering is that I swapped the 20 meter xtal with my R-4B and got the same results. I just dont see both crystals being equally off when they came from totally different environments. But who knows? I have not put the signal gen to the receiver yet to see if its off.
> David - KX7C
>
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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20922. Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 15:15:39 UTC
From: k6ctw@...
Topic: 20922 Message: 20922

Just posted a couple of color photos of the R-4A I restored. Details of this can be found in an upcoming (June I think) Electric Radio Magazine. Thought these might be of interest.

73 - Ken Miller, K6CTW

[Non-text portions of this message have been removed]

20923. Re: [DrakeRadio] Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 15:47:53 UTC
From: Garey Barrell
Topic: 20922 Message: 20923

Ken -

Very nice!! Was the chassis that good, or did you do some 'copper restoration'?

The "B" knob isn't 'original' but a LOT of us purchased the B-Line knob and skirt because it was
such an improvement over the flat skirt of the original. Unfortunately the 'other' significant
improvement in the B-Line, the 'above the belt' black labels, was more expensive, AND, back then
Drake would only sell you a new front panel AFTER you sent them your 'old' one, so you couldn't
'update' a radio. Plus, it cost $10!!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k6ctw@... [DrakeRadio] wrote:
> Just posted a couple of color photos of the R-4A I restored. Details of this can be found in an upcoming (June I think) Electric Radio Magazine. Thought these might be of interest.
>
>

20924. Re: [DrakeRadio] Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 16:05:52 UTC
From: k6ctw@...
Topic: 20922 Message: 20924

No copper restoration needed. There are just 2 small blemishes on it and they are in locations that you really have to look for them.

Yes, the B-Line knob is a nice feature, and that's the way it came on eBay.

73 - Ken, K6CTW

[Non-text portions of this message have been removed]

20925. Re: [DrakeRadio] the TR4---the plot thickens

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 16:24:44 UTC
From: Mike Bryce
Topic: 20848 Message: 20925

Some good news..

Several resistors in the mic amp section were way off values. A 47K read
64K and a 330k measured 490K.

Sub in a 10 mf for C145B with no improvement.

However, a 68 pf from pin two to ground, seemed iffy. Replaced with new and
now the mic gain can be turned fully clockwise with no howl.

Still nothing on 10 meters

but since I'm feeling cocky now, I'll tackle a half dozen of those pan
screws before moving on

mike, wb8vge

the heathkit shop.com

On Sun, May 11, 2014 at 11:28 AM, Garey Barrell
k4oah@mindspring.com[DrakeRadio]
<DrakeRadio@yahoogroups.com> wrote:

>
>
> Mike Bryce prosolar@... [DrakeRadio] wrote:
> > the leaky capacitor, a .01, was across the audio transformer. I don't
> > remember what name it is called.
>
> Ah, the old 'C136' trick! :-)
>
> >
> > Found a 3.3M resistor in the VOX circuit that was well over 5 Megs.
> > Replaced the .1 cap.
>
> If the resistor is sitting up on 'posts', it's the VOX DELAY resistor,
> select at test, R106.
> Increase would SLOW the VOX drop-out time.
>
> C143 is the VOX integrating capacitor, leakage would SPEED UP the
> drop-out! May have canceled
> each other out!
>
>
> >
> > Found the reason why I get a squeal now and then, but not the fix. I
> found

> > that turning up the mic gain to max was the culprit. IT's not suppose do
> > that, so, I'll need to dig deeper into the speech amplifier.
>
> Simple feedback, Probably C145B.
>
> >
> > I can hear the calibrator signal now on ten, but it sounds super rough as
> > though the agc has ac riding on it. Calibrator sounds completely normal
> on
> > other bands.
>
> Maybe 0A2. You're listening to the ~290th harmonic, so any ripple or noise
> on the CAL signal
> is multiplied too!
>
> >
> > I think I found the problem for low output on 80. It's alignment. On the
> > high end, 4.00, bang! 150 watts on the low end, 3.5, 50ish watts.
>
> Possibly poor solder/connection to one of the LOAD capacitor sections.
>
> You're getting there!!
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> >
> >
> >
> > On Sat, May 10, 2014 at 8:57 PM, Garey Barrell <k4oah@...>
> wrote:
> >
> >> Don't stop there.... Which cap was leaky??
> >>
> >> The VOX is 'kicked' in with the first 'dit' or the first 'syllable' by
> >> C67/D67. IF the relay clicks on the first key/sound and then drops right
> >> out, we're right back a week to NO SIDETONE OSCILLATOR.
> >>
> >> When you tune a crystal oscillator, you'll find that as you tune through
> >> resonance one side comes up smoothly, and the other side or resonance
> pops
> >> up very quickly. The STABLE point is slightly down on the SLOW side.
> >>
> >> Are the crystals the RIGHT crystals? In the RIGHT sockets?
> >>

> >> 73, Garey - K4OAH
> >> Glen Allen, VA
> >>
> >> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> >> and TR-4/C Service Supplement CDs
> >> <www.k4oah.com>
> >>
> >> prosolar@... [DrakeRadio] wrote:
> >>
> >>> Gang,
> >>>
> >>>
> >>
> > >
>
>
>

--
Mike, WB8VGE
SunLight Energy Systems
The Heathkit Shop
http://www.theheathkitshop.com/

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[Non-text portions of this message have been removed]

20926. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 20:23:19 UTC
From: David Nichols
Topic: 20918 Message: 20926

Ok Garey, I just know that Im going to drop the "e" in your name sooner or later. I have a brother named Gary. He lives over in Princeton, WV.

Thanks for giving me a direction to head in. I had to go to town this morning and will again later this afternoon. My wifes car is one on the airbag recall and is being repaired today.

Anyway, my first thought was to to really give the band switch another looking over and cleaning since some of the segments didnt really clean up as well as I had wanted. Well a couple still have not cleaned as well as I would like but are better. The two segments attached to the divider the third and fourth from the front are a bit warped but seem to be making up as they should.
On another note, someone else has been all over this deck. It looks like they took the shotgun approach and hit just about everything with the solder pencil. The trimmers where tight when I got it so not really my fault. Ill own my mess ups but I dont take credit for someone elses work. hi hi
I may have found some life on 40m now but as you say the Pre selector is out there. I found about 18 watts with the rf tune at the top end of 80m and my signal is at 7.0 MHz and the frequency counter hooked up to Q3 on board 1 is showing close enough to 18.1 (18.09980)

When I switch to 20m I get 25.09959, counter readout doesnt change when I switch to tune. So this is probably close enough to the readings you said I should see. But I dont have life on 20m yet.
I have not touched T4 or T5, ok its looking good on the transistor Ill have to figure out how to pickup something at T5.
David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com; David Nichols <hamcomm7@yahoo.com>
Sent: Monday, May 12, 2014 7:08 AM
Subject: Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

David -

Those crystals are not off, they are OFF!! As in they're NOT running at all. :-) You'll notice that if you turn the dial, those two frequencies you note DON'T move..... Hmmmmm.

Now, if you've 'tightened up the loose screws' on those trimmers, you may have detuned the PreMixer so far that IT'S not running.

Anyway, those two frequencies you mention??? The first one is actually 5.645 MHz, and is the
CAR OSC running through because there is no PreMixer signal at V2. The second one, the second
harmonic of the CAR OSC, same reason. You'll notice that the PreSelector dial is nowhere near

the band segments.......

So. First step is to back off on those trimmers. None of the trimmers in this radio need to be
'tight'. A few may end up pretty 'loose', but none tight. Put your counter near the BAND oscillator, the transistor is on the board right near the crystal sockets under the chassis.
Set the MODE switch to TUNE, with GAIN at 0 (MAX CCW). Look for signals at 18.1 MHz (40M) and
25.1 MHz (20M). Try for the one at 32.1 MHz (15M) first, since we know it's working. If one or
both are actually there, put your counter (or preferably a scope if you have one) over on T5.
Set the PreSelector control to within the marked segment for each of the two bands as appropriate. With the PTO dial set to 0.000, you should find 12.645 MHz on 40M, and 26.645 MHz
on 15M. Unless you have adjusted T4 and/or T5, you don't need to touch them, yet. Adjust the
two _INJ TRIM_ trimmers (frontmost) for maximum signal on each of the bands at those two frequencies.

Now, those two rearmost trimmers _RF TRIM_ on each band need to be adjusted back from where you tuned them when you were trying to tune them to the wrong frequencies, (well outside their
design goal!) Again, with the PreSelector set appropriately, and MODE switch to TUNE, GAIN to
about 10 o'clock, and adjust them for maximum output. Set the LOAD control to 0, (CCW,) and WATCH for drive to the PA, the PLATE meter will JUMP up suddenly when you get the trimmers in
the correct range, so be prepared to DIP the PA immediately and reduce the GAIN for no more than
150 mA at the DIP.

These adjustments will all be refined as part of the alignment procedure, once everything is
working! Watch the PLATE current, DIP the final......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> My 40 and 20 meter frequencies are way off. I thought I would ask if I had missed some adjustment before I order more crystals. As Im sure some of you know, they dont come cheap. I got the new one installed in the TR-4cw for 40 meters and it is right on now.
> So, back to the T-4XB. 75, 15, and 10 meters are good.
>
> On 40 meters, when the dial is set to 7.0, I get 5.7 MHz out. I didnt notice anything odd when I was doing the alignment.

> On 20 meters, when the dail is set to 14.0, I get 11.3 MHz out. The back trimmers for this band are as tight as I can get them. Thats when I looked a little deeper.
> What has me really wondering is that I swapped the 20 meter xtal with my R-4B and got the same results. I just dont see both crystals being equally off when they came from totally different environments. But who knows? I have not put the signal gen to the receiver yet to see if its off.
> David - KX7C
>
>
> [Non-text portions of this message have been removed]
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

20927. Re: Yahoo drake radios group net?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 22:23:09 UTC
From: w6mqi@...
Topic: 20876 Message: 20927

Charles,
Would be nice to have a left coast group there doesn't seem to much going on here on the left coast in the way of Drakes can't even find anyone to do repairs. I have a friend who's real handy at fixing tube rigs I've tried to get him to start a service, but he wants no part of it, I guess he doesn't want to deal with the (ham) public don't blame him at all.

Dave

[Non-text portions of this message have been removed]

20928. Bias current drift

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-12 23:06:11 UTC
From: Brian and Beth Miller
Topic: 20928 Message: 20928

As I mentioned in a recent posting, I am monitoring the voltage across R36 to set plate bias. I turn the T4X-B on and let it warm up for a few minutes, then, with GAIN fully CCW (but still on), I measure the voltage across R36. But I observe that the voltage drifts. There are 2 factors involved.

- How long the T4X-B has been on GAIN full CCW, mode SSB, prior to setting mode to TUNE and setting bias.

- How long the T4X-B has been on GAIN full CCW, mode TUNE, prior to setting bias.

Without altering the bias pot on the power supply:

If I only let the xmitter warm up for 5 minutes I measure 59.4mA plate current.

If I let the xmitter warm up for 35 minutes I measure 65mA plate current.

In the 2 cases above, plate current was measured immediately after setting mode to TUNE.

If I let the xmitter warm up for 35 minutes, then set mode to TUNE and leave it there, the plate currents slowly rises. It stabilizes after about 20 minutes at a value of 76mA.

I checked Vbias out of the AC-4; it does not drift.

From minimum (59.4mA) to maximum (76mA) I measure a change of 27%.

How do I measure the plate current? I assume I want to let the T4X-B warm up fully; maybe 30 minutes to be conservative, but how long should I leave it in TUNE mode before I attempt to set the bias?

Brian NI7P

[Non-text portions of this message have been removed]

20929. Re: [DrakeRadio] Bias current drift

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 02:07:08 UTC
From: Garey Barrell
Topic: 20928 Message: 20929

Brian -

That sort of 'idle current creep' is usually the result of 'gassy' finals. More accurately 'grid emission'. Often the result of a mishap of some sort, off resonance, antenna problem, trying to tune up on the 'wrong' antenna, or other abuse of the PA tubes.

If the output on 10M is still close to 100W, then I'd just wait until it stopped drifting and
then set it for 70 mA. Then let it warm up for about 30 minutes or so before transmitting. On
CW it won't really matter, the IMD might be a little higher on SSB until the PA reaches it's
'operating' temperature.

Easiest way to monitor is to measure the voltage across R36. Measure R36 first and record the
ACTUAL resistance. Then measure the voltage drop across it and calculate the current. You can
measure the voltage from the top of the chassis. There is a wire from the 'inboard' terminal of
the meter that goes over to the METER switch (between TUNE and LOAD controls) to a resistor.
That is R38, the 'select at test' calibration resistor. Put your DVM from the 'outboard' meter
terminal to the 'other' lead of R38 at the switch. This will give you the voltage across R36
and you can calculate the current using the recorded value you have for R36.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Brian and Beth Miller' bmiller297@... [DrakeRadio] wrote:
> As I mentioned in a recent posting, I am monitoring the voltage across R36
> to set plate bias. I turn the T4X-B on and let it warm up for a few minutes,
> then, with GAIN fully CCW (but still on), I measure the voltage across R36.
> But I observe that the voltage drifts. There are 2 factors involved.
>
>
>
> - How long the T4X-B has been on GAIN full CCW, mode SSB, prior to setting
> mode to TUNE and setting bias.
>

> - How long the T4X-B has been on GAIN full CCW, mode TUNE, prior to setting
> bias.
>
>
>
> Without altering the bias pot on the power supply:
>
> If I only let the xmitter warm up for 5 minutes I measure 59.4mA plate
> current.
>
> If I let the xmitter warm up for 35 minutes I measure 65mA plate current.
>
>
>
> In the 2 cases above, plate current was measured immediately after setting
> mode to TUNE.
>
> If I let the xmitter warm up for 35 minutes, then set mode to TUNE and leave
> it there, the plate currents slowly rises. It stabilizes after about 20
> minutes at a value of 76mA.
>
> I checked Vbias out of the AC-4; it does not drift.
>
>
>
> >From minimum (59.4mA) to maximum (76mA) I measure a change of 27%.
>
> How do I measure the plate current? I assume I want to let the T4X-B warm up
> fully; maybe 30 minutes to be conservative, but how long should I leave it
> in TUNE mode before I attempt to set the bias?
>
>
>
> Brian NI7P
>
>

20930. Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 12:39:34 UTC
From: rochep@...
Topic: 20930 Message: 20930

Instead of giving the on/off switch on my R4A and T4XB a workout, I have the rigs ON, plugged into a surge arrestor/outlet strip and control the ON and OFF of the rigs by simply turning ON/OFF the surge arrestor/outlet strip. Is there anything wrong with doing this?

paul

[Non-text portions of this message have been removed]

20931. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 13:06:24 UTC
From: geoffrey mendelson
Topic: 20930 Message: 20931

On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
>
> Instead of giving the on/off switch on my R4A and T4XB a workout, I
> have the rigs ON, plugged into a surge arrestor/outlet strip and
> control the ON and OFF of the rigs by simply turning ON/OFF the surge
> arrestor/outlet strip. Is there anything wrong with doing this?
>

The surge arrestor is probably useless. The MOV based ones are poor at best and dangerous at worst. The Trip-Lite ones are good, and since they are now off patent, someone is cloning them and selling them at 4 times the price to the high end audio and TV market. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20932. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:20:19 UTC
From: Garey Barrell
Topic: 20930 Message: 20932

Paul -

I assume you're doing this primarily to protect the power switch in the radio. Yes, it is an
excellent idea, I do the same. Unless the power switch on the radio is a standard toggle switch, it will be very difficult, at BEST, to find a replacement. Any sort of rotary control
with the switch 'on the back' is very rare these days. The only one seems to be the 500k, audio
taper, 'volume control' used on literally millions of table radios since the 40's, and it's not
just everywhere. Best chance these days is the guitar people. A 'dual' control, such as on the
TR-4/C, TR-7, etc., with two different value pots with a high current switch on the back....?
Unh-uh.

If I want to control specific pieces, I turn them on or off BEFORE turning the strip ON. Again,
the guitar/music people have multiple outlet strips with an individual switch for each outlet.
Very nice. They seem to have had the same problems we have, (old equipment/combination controls,) and fortunately there are enough of them to drive a market!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> Instead of giving the on/off switch on my R4A and T4XB a workout, I have the rigs ON, plugged into a surge arrestor/outlet strip and control the ON and OFF of the rigs by simply turning ON/OFF the surge arrestor/outlet strip. Is there anything wrong with doing this?
>
> paul
>
>

20933. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:22:42 UTC
From: Charles Ring
Topic: 20930 Message: 20933

On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
>
> On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
> >
> > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > arrestor/outlet strip. Is there anything wrong with doing this?
> >
>
> The surge arrestor is probably useless. The MOV based ones are poor at
> best and dangerous at worst. The Trip-Lite ones are good, and since they
> are now off patent, someone is cloning them and selling them at 4 times
> the price to the high end audio and TV market. :-)
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>

rochep was asking about using the switch on the outlet strip as a master
switch for his gear, avoiding use of the Drake power switches which are
a known failure point. Not my way of doing it but perfectly OK.

Tripp-lite is much better than MOV but how is an MOV surge protector
dangerous? I know the overall quality of the whole thing id often poor.

--
Charles Ring W3NU

[Non-text portions of this message have been removed]

20934. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:30:18 UTC
From: Ken Winterling
Topic: 20930 Message: 20934

Here is a 19" rack-mount switch panel similar to what I use:
http://www.amazon.com/American-Pc-100A-Mount-Power-Switcher/dp/B0002GL50Q

This is an individually-switched outlet strip I also have:
http://www.amazon.com/gp/product/B0068LACFI/ref=oh_details_o08_s01_i00?ie
=UTF8&psc=1

Ken
WA2LBI

On Tue, May 13, 2014 at 10:22 AM, Charles Ring w3nu@... [
DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

>
> On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
> [DrakeRadio] wrote:
> >
> > On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
> > >
> > > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > > arrestor/outlet strip. Is there anything wrong with doing this?
> > >
> >
> > The surge arrestor is probably useless. The MOV based ones are poor at
> > best and dangerous at worst. The Trip-Lite ones are good, and since they
> > are now off patent, someone is cloning them and selling them at 4 times
> > the price to the high end audio and TV market. :-)
> >
> > Geoff.
> >
> > --
> > Geoffrey S. Mendelson 4X1GM/N3OWJ
> > Jerusalem Israel.
> >
>
> rochep was asking about using the switch on the outlet strip as a master
> switch for his gear, avoiding use of the Drake power switches which are
> a known failure point. Not my way of doing it but perfectly OK.
>
> Tripp-lite is much better than MOV but how is an MOV surge protector
> dangerous? I know the overall quality of the whole thing id often poor.
>
> --
> *Charles Ring W3NU*

>
>

[Non-text portions of this message have been removed]

20935. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:45:32 UTC
From: Barry
Topic: 20930 Message: 20935

Antique Electronic Supply (www.tubesandmore.com) has some pots with the old-style switches mounted to the back. One might retrofit the switch from one of those pots.

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com, rochep@...
> Sent: Tuesday, May 13, 2014 9:20:19 AM
> Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
>
>
> Paul -
>
> I assume you're doing this primarily to protect the power switch in
> the radio. Yes, it is an
> excellent idea, I do the same. Unless the power switch on the radio
> is a standard toggle
> switch, it will be very difficult, at BEST, to find a replacement.
> Any sort of rotary control
> with the switch 'on the back' is very rare these days. The only one
> seems to be the 500k, audio
> taper, 'volume control' used on literally millions of table radios
> since the 40's, and it's not
> just everywhere. Best chance these days is the guitar people. A
> 'dual' control, such as on the
> TR-4/C, TR-7, etc., with two different value pots with a high current
> switch on the back....?
> Unh-uh.
>
> If I want to control specific pieces, I turn them on or off BEFORE
> turning the strip ON. Again,
> the guitar/music people have multiple outlet strips with an
> individual switch for each outlet.
> Very nice. They seem to have had the same problems we have, (old
> equipment/combination
> controls,) and fortunately there are enough of them to drive a
> market!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs

> <www.k4oah.com>
>
> rochep@... [DrakeRadio] wrote:
> > Instead of giving the on/off switch on my R4A and T4XB a workout, I
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> > control the ON and OFF of the rigs by simply turning ON/OFF the
> > surge arrestor/outlet strip. Is there anything wrong with doing
> > this?
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> > paul
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20936. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:47:20 UTC
From: Paul Christensen
Topic: 20930 Message: 20936

Another option is to use one or two CL-90 thermistors as a current in-rush limiter. These work reasonably well for receivers; I wouldn't use them for most transmitters/transceivers. The thermistor will limit initial current, help to save the on/off switch, and also bring down high mains voltage back into the 115V-117V AC range where power companies are pushing upwards of 125VAC as a normal line voltage. The thermistors get hot and if they're installed under a chassis, it's best to place them near a vent hole.

Yet another option is to use a solid-state relay (SSR) installed in the equipment. These work well for both Rx and Tx. I designed a PCB for my boatanchor gear that uses a choice of zero-crossing or random crossing Omron SSRs. With the SSR, the on/off switch only passes a few mA of current and never sees an in-rush.

Paul, W9AC

----- Original Message -----
From: Charles Ring w3nu@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com ; geoffrey mendelson ; rochep@...
Sent: Tuesday, May 13, 2014 10:22 AM
Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch

On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
>
> On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
> >
> > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > arrestor/outlet strip. Is there anything wrong with doing this?
> >
>
> The surge arrestor is probably useless. The MOV based ones are poor at
> best and dangerous at worst. The Trip-Lite ones are good, and since they
> are now off patent, someone is cloning them and selling them at 4 times
> the price to the high end audio and TV market. :-)
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>

rochep was asking about using the switch on the outlet strip as a master switch for his gear, avoiding use of the Drake power switches which are

a known failure point. Not my way of doing it but perfectly OK.

Tripp-lite is much better than MOV but how is an MOV surge protector dangerous? I know the overall quality of the whole thing id often poor.

--
Charles Ring W3NU

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20937. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:48:01 UTC
From: Barry
Topic: 20930 Message: 20937

One example:

http://www.tubesandmore.com/products/R-VS-500KA

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: "Barry n4buq@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 13, 2014 9:45:32 AM
> Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
>
> Antique Electronic Supply (www.tubesandmore.com) has some pots with
> the old-style switches mounted to the back. One might retrofit the
> switch from one of those pots.
>
> Thanks,
> Barry - N4BUQ
>
> ----- Original Message -----
> > From: "Garey Barrell k4oah@... [DrakeRadio]"
> > <DrakeRadio@yahoogroups.com>
> > To: DrakeRadio@yahoogroups.com, rochep@...
> > Sent: Tuesday, May 13, 2014 9:20:19 AM
> > Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
> >
> >
> > Paul -
> >
> > I assume you're doing this primarily to protect the power switch in
> > the radio. Yes, it is an
> > excellent idea, I do the same. Unless the power switch on the
> > radio
> > is a standard toggle
> > switch, it will be very difficult, at BEST, to find a replacement.
> > Any sort of rotary control
> > with the switch 'on the back' is very rare these days. The only
> > one
> > seems to be the 500k, audio
> > taper, 'volume control' used on literally millions of table radios
> > since the 40's, and it's not
> > just everywhere. Best chance these days is the guitar people. A
> > 'dual' control, such as on the
> > TR-4/C, TR-7, etc., with two different value pots with a high
> > current

> > switch on the back....?
> > Unh-uh.
> >
> > If I want to control specific pieces, I turn them on or off BEFORE
> > turning the strip ON. Again,
> > the guitar/music people have multiple outlet strips with an
> > individual switch for each outlet.
> > Very nice. They seem to have had the same problems we have, (old
> > equipment/combination
> > controls,) and fortunately there are enough of them to drive a
> > market!
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > rochep@... [DrakeRadio] wrote:
> > > Instead of giving the on/off switch on my R4A and T4XB a workout,
> > > I
> > > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > > control the ON and OFF of the rigs by simply turning ON/OFF the
> > > surge arrestor/outlet strip. Is there anything wrong with doing
> > > this?
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20938. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 14:50:38 UTC
From: Barry
Topic: 20930 Message: 20938

Or this:

http://www.tubesandmore.com/products/R-V10KA-S-KU

Hard to beat that price...

Thanks,
Barry - N4BUQ

----- Original Message -----
> From: "Barry n4buq@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 13, 2014 9:48:01 AM
> Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
>
> One example:
>
> http://www.tubesandmore.com/products/R-VS-500KA
>
> Thanks,
> Barry - N4BUQ
>
> ----- Original Message -----
> > From: "Barry n4buq@... [DrakeRadio]"
> > <DrakeRadio@yahoogroups.com>
> > To: DrakeRadio@yahoogroups.com
> > Sent: Tuesday, May 13, 2014 9:45:32 AM
> > Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
> >
> > Antique Electronic Supply (www.tubesandmore.com) has some pots with
> > the old-style switches mounted to the back. One might retrofit the
> > switch from one of those pots.
> >
> > Thanks,
> > Barry - N4BUQ
> >
> > ----- Original Message -----
> > > From: "Garey Barrell k4oah@... [DrakeRadio]"
> > > <DrakeRadio@yahoogroups.com>
> > > To: DrakeRadio@yahoogroups.com, rochep@...
> > > Sent: Tuesday, May 13, 2014 9:20:19 AM
> > > Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
> > >
> > >
> > > Paul -
> > >

> > > I assume you're doing this primarily to protect the power switch
> > > in
> > > the radio. Yes, it is an
> > > excellent idea, I do the same. Unless the power switch on the
> > > radio
> > > is a standard toggle
> > > switch, it will be very difficult, at BEST, to find a
> > > replacement.
> > > Any sort of rotary control
> > > with the switch 'on the back' is very rare these days. The only
> > > one
> > > seems to be the 500k, audio
> > > taper, 'volume control' used on literally millions of table
> > > radios
> > > since the 40's, and it's not
> > > just everywhere. Best chance these days is the guitar people. A
> > > 'dual' control, such as on the
> > > TR-4/C, TR-7, etc., with two different value pots with a high
> > > current
> > > switch on the back....?
> > > Unh-uh.
> > >
> > > If I want to control specific pieces, I turn them on or off
> > > BEFORE
> > > turning the strip ON. Again,
> > > the guitar/music people have multiple outlet strips with an
> > > individual switch for each outlet.
> > > Very nice. They seem to have had the same problems we have, (old
> > > equipment/combination
> > > controls,) and fortunately there are enough of them to drive a
> > > market!
> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
> > >
> > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > and TR-4/C Service Supplement CDs
> > > <www.k4oah.com>
> > >
> > > rochep@... [DrakeRadio] wrote:
> > > > Instead of giving the on/off switch on my R4A and T4XB a
> > > > workout,
> > > > I
> > > > have the rigs ON, plugged into a surge arrestor/outlet strip
> > > > and
> > > > control the ON and OFF of the rigs by simply turning ON/OFF the
> > > > surge arrestor/outlet strip. Is there anything wrong with doing
> > > > this?
> > > >
> > > > paul

> > > >
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> > > Yahoo Groups Links
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20939. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 15:02:42 UTC
From: Robert Spooner
Topic: 20930 Message: 20939

Paul,

Does the PCB you designed small enough to mount internally? Also, I?m curious as to what advantage a random crossing SSR would have. Can you give us some more details on what you developed?

73,
Bob AD3K

On May 13, 2014, at 10:47 AM, 'Paul Christensen' w9ac@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Another option is to use one or two CL-90 thermistors as a current in-rush limiter. These work reasonably well for receivers; I wouldn't use them for most transmitters/transceivers. The thermistor will limit initial current, help to save the on/off switch, and also bring down high mains voltage back into the 115V-117V AC range where power companies are pushing upwards of 125VAC as a normal line voltage. The thermistors get hot and if they're installed under a chassis, it's best to place them near a vent hole.
>
> Yet another option is to use a solid-state relay (SSR) installed in the equipment. These work well for both Rx and Tx. I designed a PCB for my boatanchor gear that uses a choice of zero-crossing or random crossing Omron SSRs. With the SSR, the on/off switch only passes a few mA of current and never sees an in-rush.
>
> Paul, W9AC
>
> ----- Original Message -----
> From: Charles Ring w3nu@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com ; geoffrey mendelson ; rochep@...
> Sent: Tuesday, May 13, 2014 10:22 AM
> Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
>
> On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
> [DrakeRadio] wrote:
> >
> > On 5/13/2014 3:39 PM, rochep@comcast.net [DrakeRadio] wrote:
> > >
> > > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > > arrestor/outlet strip. Is there anything wrong with doing this?
> > >
> >
> > The surge arrestor is probably useless. The MOV based ones are poor at
> > best and dangerous at worst. The Trip-Lite ones are good, and since they

> > are now off patent, someone is cloning them and selling them at 4 times
> > the price to the high end audio and TV market. :-)
> >
> > Geoff.
> >
> > --
> > Geoffrey S. Mendelson 4X1GM/N3OWJ
> > Jerusalem Israel.
> >
>
> rochep was asking about using the switch on the outlet strip as a master
> switch for his gear, avoiding use of the Drake power switches which are
> a known failure point. Not my way of doing it but perfectly OK.
>
> Tripp-lite is much better than MOV but how is an MOV surge protector
> dangerous? I know the overall quality of the whole thing id often poor.
>
> --
> *Charles Ring W3NU*
>
> [Non-text portions of this message have been removed]
>
> [Non-text portions of this message have been removed]
>
>
>

[Non-text portions of this message have been removed]

20940. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 15:07:41 UTC
From: Evan Rolek
Topic: 20930 Message: 20940

I've installed thermistors in my L4B and L7 amps and have used them successfully for several years. Too, one needs to investigate some of the "inrush current protectors" on the market since some of them, well, don't do that. I bought two of these devices knowing what they really are, just to have a "remote" on/off switch for my linears. As to limiting inrush current, these devices afford maybe 25-50 msec of current limiting at best, well under the time it takes for filaments to heat and capacitors to charge. Thus the use of thermistors.

73,

Evan

-----Original Message-----
From: Robert Spooner rls19@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>; Paul Christensen <w9ac@...>
Sent: Tue, May 13, 2014 11:02 am
Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch

Paul,

Does the PCB you designed small enough to mount internally? Also, I?m curious as to what advantage a random crossing SSR would have. Can you give us some more details on what you developed?

73,
Bob AD3K

On May 13, 2014, at 10:47 AM, 'Paul Christensen' w9ac@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Another option is to use one or two CL-90 thermistors as a current in-rush limiter. These work reasonably well for receivers; I wouldn't use them for most transmitters/transceivers. The thermistor will limit initial current, help to save the on/off switch, and also bring down high mains voltage back into the 115V-117V AC range where power companies are pushing upwards of 125VAC as a normal line voltage. The thermistors get hot and if they're installed under a chassis, it's best to place them near a vent hole.
>
> Yet another option is to use a solid-state relay (SSR) installed in the equipment. These work well for both Rx and Tx. I designed a PCB for my boatanchor gear that uses a choice of zero-crossing or random crossing Omron SSRs. With the SSR, the on/off switch only passes a few mA of current and never sees an in-rush.
>
> Paul, W9AC
>
> ----- Original Message -----

> From: Charles Ring w3nu@roadrunner.com [DrakeRadio]
> To: DrakeRadio@yahoogroups.com ; geoffrey mendelson ; rochep@...
> Sent: Tuesday, May 13, 2014 10:22 AM
> Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch
>
> On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
> [DrakeRadio] wrote:
> >
> > On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
> > >
> > > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > > arrestor/outlet strip. Is there anything wrong with doing this?
> > >
> >
> > The surge arrestor is probably useless. The MOV based ones are poor at
> > best and dangerous at worst. The Trip-Lite ones are good, and since they
> > are now off patent, someone is cloning them and selling them at 4 times
> > the price to the high end audio and TV market. :-)
> >
> > Geoff.
> >
> > --
> > Geoffrey S. Mendelson 4X1GM/N3OWJ
> > Jerusalem Israel.
> >
>
> rochep was asking about using the switch on the outlet strip as a master
> switch for his gear, avoiding use of the Drake power switches which are
> a known failure point. Not my way of doing it but perfectly OK.
>
> Tripp-lite is much better than MOV but how is an MOV surge protector
> dangerous? I know the overall quality of the whole thing id often poor.
>
> --
> *Charles Ring W3NU*
>
> [Non-text portions of this message have been removed]
>
> [Non-text portions of this message have been removed]
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>

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Yahoo Groups Links

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20941. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 15:11:07 UTC
From: Paul Christensen
Topic: 20930 Message: 20941

You can see the board size on my QRZ.com page where its installed in a Hallicrafters receiver -- I think its my SX-100.

Zero-crossing helps to limit current since the switch internal to the SSR does not activate until the AC sine wave crosses 0 volts. However, you'll find warnings from SSR manufacturers about not using zero-crossing types on heavily inductive loads and even some transformers. In those cases, random turn-on (RTO) types are preferred.

Paul, W9AC
----- Original Message -----
From: Robert Spooner
To: DrakeRadio@yahoogroups.com ; Paul Christensen
Sent: Tuesday, May 13, 2014 11:02 AM
Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch

Paul,

Does the PCB you designed small enough to mount internally? Also, I?m curious as to what advantage a random crossing SSR would have. Can you give us some more details on what you developed?

73,
Bob AD3K

On May 13, 2014, at 10:47 AM, 'Paul Christensen' w9ac@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

Another option is to use one or two CL-90 thermistors as a current in-rush limiter. These work reasonably well for receivers; I wouldn't use them for most transmitters/transceivers. The thermistor will limit initial current, help to save the on/off switch, and also bring down high mains voltage back into the 115V-117V AC range where power companies are pushing upwards of 125VAC as a normal line voltage. The thermistors get hot and if they're installed under a chassis, it's best to place them near a vent hole.

Yet another option is to use a solid-state relay (SSR) installed in the equipment. These work well for both Rx and Tx. I designed a PCB for my boatanchor gear that uses a choice of zero-crossing or random crossing Omron SSRs. With the SSR, the on/off switch only passes a few mA of current and never sees an in-rush.

Paul, W9AC

----- Original Message -----
From: Charles Ring w3nu@roadrunner.com [DrakeRadio]
To: DrakeRadio@yahoogroups.com ; geoffrey mendelson ; rochep@...
Sent: Tuesday, May 13, 2014 10:22 AM
Subject: Re: [DrakeRadio] Drake Radio ON/OFF switch

On 5/13/2014 0906, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
>
> On 5/13/2014 3:39 PM, rochep@... [DrakeRadio] wrote:
> >
> > Instead of giving the on/off switch on my R4A and T4XB a workout, I
> > have the rigs ON, plugged into a surge arrestor/outlet strip and
> > control the ON and OFF of the rigs by simply turning ON/OFF the surge
> > arrestor/outlet strip. Is there anything wrong with doing this?
> >
>
> The surge arrestor is probably useless. The MOV based ones are poor at
> best and dangerous at worst. The Trip-Lite ones are good, and since they
> are now off patent, someone is cloning them and selling them at 4 times
> the price to the high end audio and TV market. :-)
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>

rochep was asking about using the switch on the outlet strip as a master switch for his gear, avoiding use of the Drake power switches which are a known failure point. Not my way of doing it but perfectly OK.

Tripp-lite is much better than MOV but how is an MOV surge protector dangerous? I know the overall quality of the whole thing id often poor.

--
Charles Ring W3NU

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20942. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 15:12:36 UTC
From: geoffrey mendelson
Topic: 20930 Message: 20942

On 5/13/2014 5:22 PM, Charles Ring wrote:
>
>
> Tripp-lite is much better than MOV but how is an MOV surge protector
> dangerous? I know the overall quality of the whole thing id often poor.

The "surge prevention" burns out a little at a time, and eventually you end up thinking you have something you don't.

If they don't have a fuse in series with the power line, they are really dangerous.

If there is enough of an overload, and no fuse, they short out the full power line current and this often happens with a band and smoke. If they are in a plastic enclosure it may catch fire.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20943. Re: [DrakeRadio] Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 15:40:09 UTC
From: Chgypsy@...
Topic: 20930 Message: 20943

In a message dated 5/13/2014 8:39:36 A.M. Eastern Daylight Time,
DrakeRadio@yahoogroups.com writes:

Instead of giving the on/off switch on my R4A and T4XB a workout, I have
the rigs ON, plugged into a surge arrestor/outlet strip and control the ON
and OFF of the rigs by simply turning ON/OFF the surge arrestor/outlet
strip. Is there anything wrong with doing this?

That's what most of us do.....Carl wd8nhk

[Non-text portions of this message have been removed]

20944. Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 16:25:33 UTC
From: garywinblad@...
Topic: 20922 Message: 20944

Nice radio Ken.
You could make one last easy improvement.
I took a red Sharpie and painted my little dial adjuster thingy.
What a difference, looks brand new IMHO.
73,
Gary
WB6OGD

[Non-text portions of this message have been removed]

20945. Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 16:37:59 UTC
From: k6ctw@...
Topic: 20922 Message: 20945

Thanks, I'll do that! Every little bit helps.

I probably should see if I can find an "A" tuning dial and skirt, to make it more correct but the "B" one is really nice.

However, this wasn't restored as a collector's version, just as a good working radio.

73 - ken

[Non-text portions of this message have been removed]

20946. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 17:39:38 UTC
From: LAWRENCE MATHESON
Topic: 20922 Message: 20946

Ken,
I have a knob and skirt for an A if you want to trade.

Thanks,

Lawrence, WA4BHK

On Tue, May 13, 2014 12:37 PM, k6ctw@... [DrakeRadio] wrote:
>
> Thanks, I'll do that! Every little bit helps.
>
> I probably should see if I can find an "A" tuning dial and skirt, to
> make it more correct but the "B" one is really nice.
>
> However, this wasn't restored as a collector's version, just as a good
> working radio.
>
> 73 - ken
>
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20947. Re: Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 17:47:51 UTC
From: lane denune
Topic: 20930 Message: 20947

I am more worried about seeing a potentiometer wear down to nothing. We had that problem with our Moto HT's on the railroad in daily use.After countless on/off cycles the mil spec radios developed worn out volume pots.. My proceedure is to leave things powered up and switch an outlet on/off. 73 de n8aft

[Non-text portions of this message have been removed]

20948. Re: Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 18:44:15 UTC
From: Mark Gilger
Topic: 20930 Message: 20948

I've been using the old Computer monitor switch stands. Amazon has one similar to what I've been using, only I've been picking mine up at hamfest for about $5 or less.

http://www.amazon.com/Tripp-Lite-TMC-6-Protect-Protector/dp/B0000AKA90/ref=sr_1_2?s=electronics&ie=UTF8&qid=1400006054&sr=1-2&keywords=computer+monitor+AC+outlet+switch+box

They are big enough you can set a radio on top of them. Put two or three side by side and you can switch on most anything in the shack within cord length.

I'm not interested in surge protection, only the on/off switch feature. Just leave all of the radio switches on and do the on/off through these.

Mark, WB0IQK

20949. Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 20:22:35 UTC
From: garywinblad@...
Topic: 20922 Message: 20949

Another question (probably for Garey)...
I see in your photos, it looks like the bottom cover is the same as the one on my T-4X, not my R-4A. There is a cutout on the front right that allows the external xtal socket.
Did Drake simplify their inventory at some point and use the same cover?

73,
Gary
WB6OGD

[Non-text portions of this message have been removed]

20950. Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 20:53:05 UTC
From: garywinblad@...
Topic: 20922 Message: 20950

Hi Ken,
I have had 2 R-4A's over the years. I love them, they are the best receiver ever!
To me the B knob looks wrong but I guess the skirt would be more "visible".
My first R-4A was an early one, had the 5KHz markings and no preselector vernier.
My new one (since 1980, hardly new!) has 25KHz markings and the vernier. Yours
must be between my 2, you have 5KHz and vernier!
I was sooo thrilled when I sharpied my radios. My T-4X was almost grey but in
20seconds it looked like I remembered it back when I had the first R-4A in 1967.
73,
Gary
WB6OGD
El Dorado Hills, CA

[Non-text portions of this message have been removed]

20951. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-13 21:15:36 UTC
From: Garey Barrell
Topic: 20922 Message: 20951

Gary -

Good question... Crystal control was not standard until the T-4XC. However the side crystal mount WAS of course in the T-4. Even the T-4B didn't use that, it had a 10 socket crystal bank
inside a door on the right side of the upper cabinet, and just a crystal switch on the front
panel. Even the T-4B used the same bottom cover, with a black disc mounted with a single screw
on the chassis cutout. Apparently they decided to put the holes and the cover cutout on all models, covering it with either black tape or for a while with a black disc with a screw through
the center of it.

I can't find any record of a 'kit' from Drake to add a socket, it was just a socket with a ceramic trimmer across it and coax over to the PreMixer, so wouldn't have been difficult to add.
Of course there was no front panel provision for selecting either PTO or crystal, so not a 'convenient' feature!

I doubt that cover was ever used on the receivers, at least not by the factory. If ham were to
swap the bottom covers, he'd just have no cutout over his black tape! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

garywinblad@... [DrakeRadio] wrote:
> Another question (probably for Garey)...
> I see in your photos, it looks like the bottom cover is the same as the one
> on my T-4X, not my R-4A. There is a cutout on the front right that allows
> the external xtal socket.
> Did Drake simplify their inventory at some point and use the same cover?
>
> 73,
> Gary
> WB6OGD
>

20952. PLATE CHOKE SUPPRESSOR

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 00:03:17 UTC
From: David Nichols
Topic: 20952 Message: 20952

Anyone have some parasitic suppressors made up that you can part with?
Im working on my T-4XB and one has already broken off on me. I dont know if they are any different than the rest of the Drakes or not.

David - KX7C

[Non-text portions of this message have been removed]

20953. T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 01:38:16 UTC
From: rochep@...
Topic: 20953 Message: 20953

I have read that a T/R relay that starts out fine, and then gets worse as your TX warms up(sticks for longer and longer time and eventually NEVER releases to RX) , is a sign of a gassy 6EV7 VOX tube. I have that problem. When I first turn on my TX I can tune up, all is fine, and maybe a quick DX "5NN" contact. But after 3 minutes or so, when I key the rig it stays in transmit. Have to actually turn OFF the power to get it to trip! Happens in dummy load; I can simply close my PTT switch, NOT actually send code, and when I release PTT it does not open the relay.

I have now bought TWO "new" 6EV7 tubes, no cure. The T/R relay setting seems VERY sensitive to the vox gain/anti-vox/vox delay settings. I like a VERY quiet sidetone: I tried increasing it and does not help. Am I perhaps setting up the rig wrong, or should this type of behavior really a sign of yet another bad 6EV7?

(checked resistances, only wierd ones are :
V8 6HS6 pin 6 is 19K instead of 90K and pin 7 is 51K instead of 470 ohms
V10 6EV7 pin 2 is 850K instead of 500K.

This is with a DMM, NOT a 11 meg VTVM

(all voltages check out OK, even those on 6HS6).

(my T4XC uses a 6EJ7 instead of a 6EV7, is this an exact replacement? My T4XC works fine)

paul

[Non-text portions of this message have been removed]

20954. TRADE: R4C knob for R4A knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 01:54:59 UTC
From: rochep@...
Topic: 20954 Message: 20954

The R4A I got from eBay has a round R4C dial knob (with metal insert and the black finger spinner thing) instead of the plain black "jagged" dial knob that the R4A is supposed to have. Does anyone have an R4A knob they would like to trade?

(I also have an R4C dial knob that has a "chrome" finger spinner thing, not sure where that came from).

paul

[Non-text portions of this message have been removed]

20955. Re: [DrakeRadio] TRADE: R4C knob for R4A knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:03:27 UTC
From: LAWRENCE MATHESON
Topic: 20954 Message: 20955

Paul,
Do you want to trade just the knob or the knob and skirt? I have a knob with the flat skirt that I would trade for a knob like yours but would it would have to include the "rounded" skirt like what was on a R4B.

Lawrence

On Tue, May 13, 2014 9:54 PM, rochep@... [DrakeRadio] wrote:
>
> The R4A I got from eBay has a round R4C dial knob (with metal insert
> and the black finger spinner thing) instead of the plain black
> "jagged" dial knob that the R4A is supposed to have. Does anyone have
> an R4A knob they would like to trade?
>
> (I also have an R4C dial knob that has a "chrome" finger spinner
> thing, not sure where that came from).
>
> paul
>
>
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20956. Re: [DrakeRadio] TRADE: R4C knob for R4A knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:35:52 UTC
From: rochep@...
Topic: 20954 Message: 20956

HI Lawrence,

Not sure I understand. The skirt I have is not flat, it is sort of beveled "back" toward the radio. So I guess the knob itself sits about 1/4" off the front panel. (You can see a picture of my R4A on the PHOTOS section from an April 6 picture, I have a KNOB with black finger dimply or stainless finger dimple).

Would the knob you have FIT, or would I require to have a flat skirt? I want to keep the rounded skirt that I have currently. Are you saying R4A skirts are flat and R4B/T4XB skirts are "rounded"?

paul

[Non-text portions of this message have been removed]

20957. vfo skirt r4b

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:38:25 UTC
From: David Nichols
Topic: 20957 Message: 20957

Ok, reading these comments on the VFO knob skirts got me to looking at mine.
I noticed a while back that the one on my R-4B was a little different from the one on the T- 4XB.
The are both conical but the one on the receiver only has lines on it and the one on the transmitter has lines and numbers. Its not a big deal but since you got me to look at them I thought I would ask if one has been swapped out or something?
David - KX7C

[Non-text portions of this message have been removed]

20958. Re: [DrakeRadio] T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:42:35 UTC
From: Garey Barrell
Topic: 20953 Message: 20958

Paul -

Your T-4XC also uses a 6EV7, NOT a 6EJ7.

I think you have rebuilt your power supply, so the BIAS voltage should be stable.

'Sticky' relay like this usually indicates a leaky 6EV7. Could also be a bad D9 or D12.

Check the voltage on C99.

Check the Grid voltage on Pin 7 of V10b and see if it changes when 'sticking'.

You can also reduce the value of R94 to 470k.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> I have read that a T/R relay that starts out fine, and then gets worse as your TX warms up(sticks for longer and longer time and eventually NEVER releases to RX) , is a sign of a gassy 6EV7 VOX tube. I have that problem. When I first turn on my TX I can tune up, all is fine, and maybe a quick DX "5NN" contact. But after 3 minutes or so, when I key the rig it stays in transmit. Have to actually turn OFF the power to get it to trip! Happens in dummy load; I can simply close my PTT switch, NOT actually send code, and when I release PTT it does not open the relay.
>
> I have now bought TWO "new" 6EV7 tubes, no cure. The T/R relay setting seems VERY sensitive to the vox gain/anti-vox/vox delay settings. I like a VERY quiet sidetone: I tried increasing it and does not help. Am I perhaps setting up the rig wrong, or should this type of behavior really a sign of yet another bad 6EV7?
>
> (checked resistances, only wierd ones are :
> V8 6HS6 pin 6 is 19K instead of 90K and pin 7 is 51K instead of 470 ohms
> V10 6EV7 pin 2 is 850K instead of 500K.
>
> This is with a DMM, NOT a 11 meg VTVM
>
> (all voltages check out OK, even those on 6HS6).
>
> (my T4XC uses a 6EJ7 instead of a 6EV7, is this an exact replacement? My T4XC works fine)
>
> paul
>

>

20959. Re: [DrakeRadio] TRADE: R4C knob for R4A knob

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:54:53 UTC
From: Garey Barrell
Topic: 20954 Message: 20959

Paul -

Yes, you have a "B" skirt and knob. The "A" skirt is flat, not dished.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> HI Lawrence,
>
> Not sure I understand. The skirt I have is not flat, it is sort of beveled "back" toward the radio. So I guess the knob itself sits about 1/4" off the front panel. (You can see a picture of my R4A on the PHOTOS section from an April 6 picture, I have a KNOB with black finger dimply or stainless finger dimple).
>
> Would the knob you have FIT, or would I require to have a flat skirt? I want to keep the rounded skirt that I have currently. Are you saying R4A skirts are flat and R4B/T4XB skirts are "rounded"?
>
> paul
>
>

[Non-text portions of this message have been removed]

20960. Re: [DrakeRadio] vfo skirt r4b

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:59:11 UTC
From: Garey Barrell
Topic: 20957 Message: 20960

David -

The one with just lines may be from a TR-4. The "B" skirt is 'dished', and has 0-25 (kHz) markings. the "C-Line" skirts are dished with no lines or numbers.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok, reading these comments on the VFO knob skirts got me to looking at mine.
> I noticed a while back that the one on my R-4B was a little different from the one on the T- 4XB.
> The are both conical but the one on the receiver only has lines on it and the one on the transmitter has lines and numbers. Its not a big deal but since you got me to look at them I thought I would ask if one has been swapped out or something?
> David - KX7C
>
>

20961. Re: [DrakeRadio] T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 02:59:52 UTC
From: rochep@...
Topic: 20953 Message: 20961

I was wrong, V10 in my T4XC is a 6FQ7, not a 6EV7 as indicated on my schematic from the internet. I don't know why I said 6EJ7. All those numbers and letters. I will check all the other stuff as you suggest. I have not re-capped anything other than those two electrolytics in the sidetone chain.

p

[Non-text portions of this message have been removed]

20962. WTB: Drake L-4B Amplifier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 03:40:54 UTC
From: Whitebear1122
Topic: 20957 Message: 20962

Looking for a Drake L-4B amplifier, prefer good condition, functional, Eimac tubes, within driving distance of Saint Paul MN would be great . 73, Scott WA9WFA

20963. Re: [DrakeRadio] T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 10:34:00 UTC
From: rochep@...
Topic: 20953 Message: 20963

Since the problem only shows up after a few minutes of use, how could it be anything OTHER than the tube? Would those diodes go from "working" to "non-working" as they "warm up"?

paul

[Non-text portions of this message have been removed]

20964. Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 12:20:02 UTC
From: tjb813@...
Topic: 20953 Message: 20964

Re-check you bias when "cold" and then after the relay starts to stick. It should not vary. A gassy V13 can also affect the bias.

Just my 1 cent worth.

Tim KD8CN

[Non-text portions of this message have been removed]

20965. Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 12:47:10 UTC
From: rochep@...
Topic: 20953 Message: 20965

Hmm, my TX4B only has 11 tubes! But I will certainly check these things when home. And yes, the AC4 does have the new PS.

paul

[Non-text portions of this message have been removed]

20966. Re: [DrakeRadio] Re: Drake Radio ON/OFF switch

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 14:39:10 UTC
From: Roger Roger
Topic: 20930 Message: 20966

If you really want to do it in style get you a c-4 station console. I use
it to turn on radios and swap antennas and it is really well built.
Roger
w5rjh

On Tue, May 13, 2014 at 1:44 PM, Mark Gilger mgilger@...[DrakeRadio]
<DrakeRadio@yahoogroups.com> wrote:

>
>
> I've been using the old Computer monitor switch stands. Amazon has
> one similar to what I've been using, only I've been picking mine up
> at hamfest for about $5 or less.
>
>
> http://www.amazon.com/Tripp-Lite-TMC-6-Protect-Protector/dp/B0000AKA90/ref=sr_1_2?s=elec
tronics&ie=UTF8&qid=1400006054&sr=1-2&keywords=computer+monitor+AC+outlet+switch+box
>
> They are big enough you can set a radio on top of them. Put two or
> three side by side and you can switch on most anything in the shack
> within cord length.
>
> I'm not interested in surge protection, only the on/off switch
> feature. Just leave all of the radio switches on and do the on/off
> through these.
>
> Mark, WB0IQK
>
>
>

--
W5RJH

[Non-text portions of this message have been removed]

20967. Re: [DrakeRadio] T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 14:51:49 UTC
From: Garey Barrell
Topic: 20953 Message: 20967

Paul -

No, but if the tube is 'marginal' the amount of bias shift tolerated may be less. Most power
handling tubes suffer from a 'little' grid emission. If multiple tubes perform similarly, it's
'possible' that you have had 'bad luck', and again power handling tubes are 'gas' prone as well,
so ...

The tube is supposed to be biased off by the negative voltage applied to the grid of V10b via
R94 to cut it off in STANDBY. When the SSB audio or CW sidetone is rectified by D10 and
integrated in C99 to develop a positive voltage to shift the Grid positive and cause V10b to
conduct. the ANTI-VOX audio has it's positive level clamped by D12 and rectified by D9 to apply
a negative potential to the Grid, offsetting the shift from C99. A bad D12 allows D9 to go more
positive, etc., etc.

So to answer your question, yes, a short warm-up before failure IS typical a of 'gassy' tube.
However when I get this from two 'new' tubes in a row I like to check other possibilities before
going and buying a sleeve of five 6EV7s! :-) And yes, this fault is hardly ever noticeable on
a tube tester........

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> Since the problem only shows up after a few minutes of use, how could it be anything
OTHER than the tube? Would those diodes go from "working" to "non-working" as they "warm
up"?
>

20968. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 15:01:59 UTC
From: Garey Barrell
Topic: 20953 Message: 20968

Tim -

V13? I think you mean V1... Yes, another possibility, it loads down the BIAS supply. We're in a T-4XB....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tjb813@... [DrakeRadio] wrote:
> Re-check you bias when "cold" and then after the relay starts to stick. It should not vary. A gassy V13 can also affect the bias.
>
> Just my 1 cent worth.
>
>
> Tim KD8CN
>
>

20969. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 15:53:17 UTC
From: Garey Barrell
Topic: 20922 Message: 20969

Gary -

The R-4A had four distinct versions. Two of the Early (13 tube) type and two of the Late (11
tube) type. The crossover between types was at s/n 4054. I believe only the first version came
with the 5 kHz dial markings and vernier PreSelector from the factory. There were approximately
1,000 units of each of the first three versions built, and about 1,600 of the last version.
Production ran from November 1965 to July 1967, about 18 months.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

garywinblad@... [DrakeRadio] wrote:
> Hi Ken,
> I have had 2 R-4A's over the years. I love them, they are the best receiver ever!
> To me the B knob looks wrong but I guess the skirt would be more "visible".
> My first R-4A was an early one, had the 5KHz markings and no preselector vernier.
> My new one (since 1980, hardly new!) has 25KHz markings and the vernier. Yours
> must be between my 2, you have 5KHz and vernier!
> I was sooo thrilled when I sharpied my radios. My T-4X was almost grey but in
> 20seconds it looked like I remembered it back when I had the first R-4A in 1967.
> 73,
> Gary
> WB6OGD
> El Dorado Hills, CA
>
>

20970. TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 18:43:26 UTC
From: geoffrey mendelson
Topic: 20970 Message: 20970

I'd like to thank everyone for their help and encouragement. I tackled the TR-7 today.

So far:

1. I unjammed the PTO. The dials are off by about 100kHz, but with the DR7, I don't need them.

2. I replaced the light bulbs (one an odd miniature bulb soldered in place) with LED bulb replacements. No more taking the radio apart to change bulbs.

3. I went to do the filter mods and found that it already had 1800Hz, 500Hz and 300Hz add on filters.

4. It has the noise blanker.

I've tested it into a dummy load and it seems to receive, the frequency and noise changes as you tune the dial, and it transmits when I speak into the microphone on LSB and USB.

Now I have a question.

It does not seem to cover an entire ham band at one time. For example, 14.150 is near the high end of its band, 14.250 is at the low end of the next band up. Is something wrong, or is it supposed to work this way?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20971. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 19:00:37 UTC
From: Garey Barrell
Topic: 20970 Message: 20971

Geoff -

The little lever on top of the PTO releases the gear train so you can set the dial to the correct reading.

You should be able to hear the CALibrator signal every 25 kHz.

It tunes the 1.5-30 MHz in 500 kHz blocks. If you set the BAND switch to 14, you should be able
to tune from 14.000 (0.000 on the dial) to 14.500 (0.500 on the dial) MHz. The only band that
is split is 10M, which sets to 28.5 MHz, and the UP or DOWN buttons are depressed to move it 500
kHz at a time to cover the rest of the band.

I can't think of any way offhand to get 0.250 at either end of a range, so you may have a divider problem. Maybe Jim or one of the other TR-7 experts will check in on that.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:
> I'd like to thank everyone for their help and encouragement. I tackled
> the TR-7 today.
>
> So far:
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> 1. I unjammed the PTO. The dials are off by about 100kHz, but with the
> DR7, I don't need them.
>
> 2. I replaced the light bulbs (one an odd miniature bulb soldered in
> place) with LED bulb replacements. No more taking the radio apart to
> change bulbs.
>
> 3. I went to do the filter mods and found that it already had 1800Hz,
> 500Hz and 300Hz add on filters.
>
> 4. It has the noise blanker.
>
> I've tested it into a dummy load and it seems to receive, the frequency
> and noise changes as you tune the dial, and it transmits when I speak
> into the microphone on LSB and USB.
>

> Now I have a question.
>
> It does not seem to cover an entire ham band at one time. For example,
> 14.150 is near the high end of its band, 14.250 is at the low end of the
> next band up. Is something wrong, or is it supposed to work this way?
>
> TIA,
>
> Geoff.
>

20972. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 19:50:46 UTC
From: Evan Rolek
Topic: 20970 Message: 20972

Ensure LEDs have current limiting resistors and/or are fused. When those puppies short out, they can do unpleasant things...

-----Original Message-----
From: geoffrey mendelson geoffreymendelson@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Wed, May 14, 2014 2:43 pm
Subject: [DrakeRadio] TR-7 success

I'd like to thank everyone for their help and encouragement. I tackled the TR-7 today.

So far:

1. I unjammed the PTO. The dials are off by about 100kHz, but with the DR7, I don't need them.

2. I replaced the light bulbs (one an odd miniature bulb soldered in place) with LED bulb replacements. No more taking the radio apart to change bulbs.

3. I went to do the filter mods and found that it already had 1800Hz, 500Hz and 300Hz add on filters.

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I've tested it into a dummy load and it seems to receive, the frequency and noise changes as you tune the dial, and it transmits when I speak into the microphone on LSB and USB.

Now I have a question.

It does not seem to cover an entire ham band at one time. For example, 14.150 is near the high end of its band, 14.250 is at the low end of the next band up. Is something wrong, or is it supposed to work this way?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20973. Re: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 21:44:53 UTC
From: K4GM-George
Topic: 20819 Message: 20973

Lee,

I have one or two AC-4s but not sure what you mean by "double slot".

George K4GM

On 5/9/2014 7:29 PM, 'L L bahr ' pulsarxp@... [DrakeRadio] wrote:
>
>
> I'm putting together a station for my club (CARS). We bought a R-4C
> and a T-4C but don't have an AC-4 Power S upply. I'd like to find
> one to rebuild for the club. If you have a double slot AC-4 you will
> part with, contact me with details. Since we are going to rebuild
> it, I don't care if it presently works or not as long as the
> transformer and multi-wire power cable and plug are in decent shape.
> Thanks,
> Lee, w0vt
> trustee of w5drc
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

20974. RE: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 21:52:54 UTC
From: Doug Coffman
Topic: 20819 Message: 20974

George,

Unless I'm really off base, I have to imagine he is talking about the version with the 110/220 slide switch,

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
Sent: Wednesday, May 14, 2014 5:45 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] WTB AC-4 Power Supply

Lee,

I have one or two AC-4s but not sure what you mean by "double slot".

George K4GM

On 5/9/2014 7:29 PM, 'L L bahr ' pulsarxp@... <mailto:pulsarxp@embarqmail.com>
[DrakeRadio] wrote:
>
>
> I'm putting together a station for my club (CARS). We bought a R-4C
> and a T-4C but don't have an AC-4 Power S upply. I'd like to find
> one to rebuild for the club. If you have a double slot AC-4 you will
> part with, contact me with details. Since we are going to rebuild
> it, I don't care if it presently works or not as long as the
> transformer and multi-wire power cable and plug are in decent shape.
> Thanks,
> Lee, w0vt
> trustee of w5drc
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20975. Re: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 22:07:41 UTC
From: L L bahr
Topic: 20819 Message: 20975

The earlier AC-4 power supplies had a single row of air vents near the top of the cover and a single row of them near the bottom of the cover. After that remaining ones or later ones had a double row of air vents near the top and a double row of air vents near the bottom of the cover.
Lee, w0vt

Lee,

I have one or two AC-4s but not sure what you mean by "double slot".

George K4GM

[Non-text portions of this message have been removed]

20976. RE: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-14 22:45:41 UTC
From: Doug Coffman
Topic: 20819 Message: 20976

Lee,

Thanks for the clarification, I was not aware that that existed. I have 8 or so AC-4 supplies and never noticed that change. I have noticed that one change, owner modification, was to drill a row of horribly aligned and shaped holes and then an fan placed loosely inside the cover.

It never ceases to amaze me what people do to these things.

Doug – N9XTF

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
Sent: Wednesday, May 14, 2014 6:08 PM
To: DrakeRadio@yahoogroups.com; k4gm@...
Subject: Re: [DrakeRadio] WTB AC-4 Power Supply

The earlier AC-4 power supplies had a single row of air vents near the top of the cover and a single row of them near the bottom of the cover. After that remaining ones or later ones had a double row of air vents near the top and a double row of air vents near the bottom of the cover.
Lee, w0vt

Lee,

I have one or two AC-4s but not sure what you mean by "double slot".

George K4GM

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

20977. Re: [DrakeRadio] TR-7 band ends PTO

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 00:05:16 UTC
From: Chgypsy@...
Topic: 20977 Message: 20977

It does not seem to cover an entire ham band at one time. For example, 14.150 is near the high end of its band, 14.250 is at the low end of the next band up. Is something wrong, or is it supposed to work this way?

Geoff. 4X1GM/N3OWJ

Adjusted correctly the PTO should have a 500 Khz spread plus x amount at each end.
EG; 13908 to 14527 Mhz (mine)
Carl wd8nhk

[Non-text portions of this message have been removed]

20978. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 00:33:04 UTC
From: geoffrey mendelson
Topic: 20970 Message: 20978

On 5/14/2014 10:50 PM, Evan Rolek wrote:
> Ensure LEDs have current limiting resistors and/or are fused. When
> those puppies short out, they can do unpleasant things...
>
Thanks,

These are LED bulb replacements. They look like a #47 bulb. They have a bridge (so they can be used on AC) and current limiting. The ones I used in my SPR-4 are 6 volt and work fine in series with each other or a resistor. I put 12 volt ones in the TR-7.

I got mine from superbrightleds.com, You can also get them from cointaker.com and 2bradioparts sells 6v ones. Possibly eBay direct from China, but I did not look.

73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20979. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 03:25:48 UTC
From: rochep@...
Topic: 20953 Message: 20979

I thought I would tell the gang what I discovered tonight. I don't have the CD for the T4XB, so don't know where C99, D9, or D12 are located. Oh well ... ...

But what I DID find was this:
I tune rig on 40CW into dummy load. On SSB setting (relay OPEN) I read -3.8V on pin 7 of V10. On TUNE (relay closed and transmitting) I read -0.6V on pin 7 of V10. When the relay gets STUCK (hung-up) in CW mode (when NOT keying the rig) I read -2.9V. If I now KEY the rig it goes to -0.5V.

Changed V1 for a good 12AX7, that seemed to help!! Also changed out 6EV7, but in my flipping over and back I re-set all tubes in radio and ... BETTER!!

I ALSO noticed that after 30 minutes of warm up my bias was NOT 70 mA, it was closer to 100 mA. So I re-adjusted it. Seemed fine, so I took it off the bench and hooked her up for some QSOs.

All was going well using my bug for some QSOs, relay dropping in and out as expected. Then I got greedy. I made a PTT footswitch with the mic cable, and when I hold that down during a QSO (to avoid relay clicking after every word) STUCK!! Seems like when I keep the PTT closed, when I then release it I am STUCK! To verify this is true, I had ANOTHER QSO and did not use the footswitch, no problems.

When the footswitch is actived (relay closed) and not keying the rig the resting plate current is about 100 mA. Why would it get "stuck" simply because PTT is down for a "long time" (when I click and release PTT quickly all is fine, it seems to be bad when I HOLD the PTT down for 15 seconds or more).

paul

[Non-text portions of this message have been removed]

20980. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 03:36:16 UTC
From: Jim Shorney
Topic: 20970 Message: 20980

FWIW, the 44/47 LED replacement lamps from cointaker.com hava a small internal resistor that lets it's smoke out with overcurrent. The lesson learned from this is to put external resistors in series with the high side of the socket. It's only too easy to accidentally rotate the socket tabs (in the 7-line) and ground out the low side to the chassis...

73

-Jim
NU0C

On Thu, 15 May 2014 03:33:04 +0300, geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:

>On 5/14/2014 10:50 PM, Evan Rolek wrote:
>> Ensure LEDs have current limiting resistors and/or are fused. When
>> those puppies short out, they can do unpleasant things...
>>
>Thanks,
>
>These are LED bulb replacements. They look like a #47 bulb. They have a
>bridge (so they can be used on AC) and current limiting. The ones I used
>in my SPR-4 are 6 volt and work fine in series with each other or a
>resistor. I put 12 volt ones in the TR-7.
>
>I got mine from superbrightleds.com, You can also get them from
>cointaker.com and 2bradioparts sells 6v ones. Possibly eBay direct from
>China, but I did not look.
>
>73.
>
>Geoff.
>
>--
>Geoffrey S. Mendelson 4X1GM/N3OWJ
>Jerusalem Israel.
>
>
>
>[Non-text portions of this message have been removed]
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>

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Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.

TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

20981. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 04:16:35 UTC
From: Charles Ahlgren
Topic: 20922 Message: 20981

I have R4A SN 2050; date of mfg 12/31/65.

It has the 5 KHz markings and the vernier preselector.

Good radio. I am second owner. Have had it since 1980 and still works
great!

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

On Wed, May 14, 2014 at 8:53 AM, Garey Barrell k4oah@...[DrakeRadio]
<DrakeRadio@yahoogroups.com> wrote:

>
>
> Gary -
>
> The R-4A had four distinct versions. Two of the Early (13 tube) type and
> two of the Late (11
> tube) type. The crossover between types was at s/n 4054. I believe only
> the first version came
> with the 5 kHz dial markings and vernier PreSelector from the factory.
> There were approximately
> 1,000 units of each of the first three versions built, and about 1,600 of
> the last version.
> Production ran from November 1965 to July 1967, about 18 months.
>
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> garywinblad@... [DrakeRadio] wrote:
> > Hi Ken,
> > I have had 2 R-4A's over the years. I love them, they are the best
> receiver ever!
> > To me the B knob looks wrong but I guess the skirt would be more
> "visible".
> > My first R-4A was an early one, had the 5KHz markings and no preselector
> vernier.
> > My new one (since 1980, hardly new!) has 25KHz markings and the vernier.
> Yours
> > must be between my 2, you have 5KHz and vernier!

> > I was sooo thrilled when I sharpied my radios. My T-4X was almost grey
> but in
> > 20seconds it looked like I remembered it back when I had the first R-4A
> in 1967.
> > 73,
> > Gary
> > WB6OGD
> > El Dorado Hills, CA
> >
> >
>
>
>

[Non-text portions of this message have been removed]

20982. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 04:44:54 UTC
From: Jim Shorney
Topic: 20970 Message: 20982

On Wed, 14 May 2014 21:43:26 +0300, geoffrey mendelson
geoffreymendelson@gmail.com [DrakeRadio] wrote:

>
>It does not seem to cover an entire ham band at one time. For example,
>14.150 is near the high end of its band, 14.250 is at the low end of the
>next band up. Is something wrong, or is it supposed to work this way?

This is where a properly calibrated analog dial would be helpful... :D Check with a frequency counter or another reciever to ensure that the PTO is on the frequency that it should be for the reading on the display. The formula is the same one that is used for selecting fixed crystals for the AUX-7:

Freq. (kHz) = 5050.0 kHz + Desired Carrier Frequency (kHz) - Lowest Range Frequency (kHz)

I.E., for 14.250 it would be 5050 + 14250 - 14000 = 5300 KHz

Obviously at the bottom of each band it whould be 5050 KHz. The top of the band should be 5550 KHz. You should find your PTO within a few KHz at the most of the expected frequency. There will be a couple of hundred KHz of overrun at each end before you hit the stops, I can work down to just below 28.300 in the 28.5 band segment on my main rig. If the DR-7 and the rest of the rig electronics are working properly you should be able to hear a known signal at it's expected display frequency. WWV at 5 or 10 MHz would be a good choice if you can hear them where you are.

If the PTO frequency shows up where expected from the display reading and you can hear a known signal at the display frequency then you have a problem in the PTO, I'm guessing mechanical. The PTO gurus here can help you with that. If not, tune to a known frequency by figuring the PTO frequency required to get there and see if you can hear the signal. If this works OK there may be a problem in the preset decade counters in the DR-7.

If neither of these meothods produces reception of a known singnal I will have to think about it some more....

73

-Jim
NU0C

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

20983. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 05:00:47 UTC
From: geoffrey mendelson
Topic: 20970 Message: 20983

On 5/15/2014 6:36 AM, 'Jim Shorney' jshorney@... [DrakeRadio]
wrote:
>
>
> FWIW, the 44/47 LED replacement lamps from cointaker.com hava a small
> internal
> resistor that lets it's smoke out with overcurrent. The lesson learned
> from
> this is to put external resistors in series with the high side of the
> socket.
> It's only too easy to accidentally rotate the socket tabs (in the
> 7-line) and
> ground out the low side to the chassis...
>
Thanks. I bought mine from superbrightleds because cointaker did not
ship here when I was buying. I bought both 6 volt versions, which I have
successfully used in the SRP-4, and for Ten-Tec radios the 12 volt
versions. In some radios Ten-Tec just connected the bulb directly to the
12(13.8)v power line. Since I had them when I got the TR-7, I used
them. I would not dream of using a #47 on 12 volts, and the same for the
LED equivalent.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20984. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 05:06:59 UTC
From: geoffrey mendelson
Topic: 20970 Message: 20984

On 5/15/2014 7:44 AM, 'Jim Shorney' jshorney@... [DrakeRadio]
wrote:
>
>
> If neither of these meothods produces reception of a known singnal I
> will have
> to think about it some more....
>

Thanks. I was thinking of it last night, and the best thing I have is an MFJ antenna analyzer. Not particularly stable, but a calibrated signal generator nonetheless and a frequency counter.

I figured before I started doing such things, I should keep some record of what actually is happening and before breakfast I tried to tune in the 20 meter band. I started by moving the band switch and coming back to 14mHz, and found that from the point where it makes bad noises and I know to stop, the PTO goes from 13.7 to 14.6 mHz (and slightly beyond), so I expect that it was either a dirty connection or operator error.

Hopefully at this point, this will be the last repair question for a while, what is the threading of the set screw in the main tuning knob? Mine is missing.

TIA and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

20985. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 05:11:16 UTC
From: Jim Shorney
Topic: 20970 Message: 20985

On Thu, 15 May 2014 08:00:47 +0300, geoffrey mendelson
geoffreymendelson@... [DrakeRadio] wrote:

> I would not dream of using a #47 on 12 volts, and the same for the
>LED equivalent.

Cointaker did not have 12V versions of the warm white, so I used the 6V version with an external dropping resistor. Works fine (except for the aforementioned incident after I put the resistor in the low side on one just because it was a bit more convenient). As for never replacing lamps again, well..... LEDs have a lifetime. If you own the rig long enough you will have to replace them. I've noticed that the warm whites seem to have dropped somewhat in brightness just since I put them in.

But they will last a lot longer than the original lamps.

I think it was you who also asked about the serial number. I seem to recall hearing somewhere that Drake also stamped the serial number of each rig on the inside of the front panel.

73

-Jim
NU0C

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

20986. Rich man's AM filter work around.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 07:35:27 UTC
From: geoffrey mendelson
Topic: 20986 Message: 20986

I've mentioned in the past a "poor man's AM filter workaround", how to modify the radio to get useable AM reception from a TR-7 without a filter.

Looking at the filter board of my TR-7 I found it already had 3 optional filters, and there is no room for a fourth. This was a "let them eat cake" disappointment. I could not call myself (at least in filters) a poor man, nor could I listen to AM.

I remembered an old trick from a Kenwood rig I had, if you turn the passband tuning all the way to the right, you get readable AM. Actually quite pleasant.

73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20987. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 13:24:00 UTC
From: Garey Barrell
Topic: 20953 Message: 20987

Paul -

Well if you don't have the CD, you deserve whatever happens to you!! :-) The diodes and C141
(not C99...) are located on Board 4, right next to V9 and V10. C141 is the film cap usually
either black or yellow. D5 is right along the top edge of the board next to C141, and D9 and
D12 are down near the middle of the same board.

This is just a guess, but perhaps you are seeing the result of gassy PA tubes. The BIAS supply
is only supposed to see a 33k ohm load. That's only a couple of mils. So it doesn't take much
to 'load it down'. This would cause the IDLE current to increase, which you are seeing. It
would also reduce the negative bias available to cut off the 6EV7, which you are seeing. This
is why V1 has an effect.

I don't know the condition of your PA tubes, but they are the most likely source of grid
emission, especially since it seems to be related to the 'on' time of the PA. (relay closed)..
Of course the 6EV7 is the most likely suspect and you should check the BIAS voltage when the
6EV7 grid voltage is low also. If the BIAS 'bus' is staying steady when the 6EV7 grid is low,
then you know it's a gassy 6EV7. Grid emission is exacerbated by heat, typically after 5-10
minutes in receiving tubes, but power tubes are more susceptible.

Don't forget, NOS tubes are not always good tubes..... Real Gassy tubes can result from air
leakage past the glass metal seals. Grid emission is usually the result of age or mistreatment
causing Cathode coating flakes to dislodge.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> I thought I would tell the gang what I discovered tonight. I don't have the CD for the T4XB,
> so don't know where C99, D9, or D12 are located. Oh well ... ...
>
> But what I DID find was this:

> I tune rig on 40CW into dummy load. On SSB setting (relay OPEN) I read -3.8V on pin 7 of V10.
> On TUNE (relay closed and transmitting) I read -0.6V on pin 7 of V10. When the relay gets
> STUCK (hung-up) in CW mode (when NOT keying the rig) I read -2.9V. If I now KEY the rig it
> goes to -0.5V.
>
> Changed V1 for a good 12AX7, that seemed to help!! Also changed out 6EV7, but in my flipping
> over and back I re-set all tubes in radio and ... BETTER!!
>
> I ALSO noticed that after 30 minutes of warm up my bias was NOT 70 mA, it was closer to 100
> mA. So I re-adjusted it. Seemed fine, so I took it off the bench and hooked her up for some QSOs.
>
> All was going well using my bug for some QSOs, relay dropping in and out as expected. Then I
> got greedy. I made a PTT footswitch with the mic cable, and when I hold that down during a QSO
> (to avoid relay clicking after every word) STUCK!! Seems like when I keep the PTT closed, when
> I then release it I am STUCK! To verify this is true, I had ANOTHER QSO and did not use the
> footswitch, no problems.
>
> When the footswitch is actived (relay closed) and not keying the rig the resting plate current
> is about 100 mA. Why would it get "stuck" simply because PTT is down for a "long time" (when I
> click and release PTT quickly all is fine, it seems to be bad when I HOLD the PTT down for 15
> seconds or more).
>
> paul

20988. Re: [DrakeRadio] Rich man's AM filter work around.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 13:57:11 UTC
From: Garey Barrell
Topic: 20986 Message: 20988

Geoff -

This is known as 'exalted carrier' AM..... Tune the signal for zero beat on the carrier, and
then choose either sideband to listen to. ALL the information is duplicated in each sideband
anyway... :-) A benefit of this method is that the receiver bandwidth is less than half of what it is in AM, so lower noise and improved interference rejection.

A further benefit is that signal loss due to fading of the carrier is reduced, since the BFO is
always there. So you only have signal loss when 'your' side band fades. Yes, the sidebands and
carrier fade 'separately', i.e., one sideband, then the carrier (sounds like SSB), then the other sideband.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:
> I've mentioned in the past a "poor man's AM filter workaround", how to
> modify the radio to get useable AM reception from a TR-7 without a filter.
>
> Looking at the filter board of my TR-7 I found it already had 3 optional
> filters, and there is no room for a fourth. This was a "let them eat
> cake" disappointment. I could not call myself (at least in filters) a
> poor man, nor could I listen to AM.
>
> I remembered an old trick from a Kenwood rig I had, if you turn the
> passband tuning all the way to the right, you get readable AM. Actually
> quite pleasant.
>
> 73,
>
> Geoff.
>

20989. Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 14:36:47 UTC
From: rochep@...
Topic: 20953 Message: 20989

I certainly do not know if these PA tubes are good. I have a "bad" set of PA tubes that go into oscillation if I tune up and up and up and I get TONS of output (about 150 watts), but I could probably try the "bad" PA tubes in the T4XB (keeping output at 90 watts or so) and see if I have the same "hang-up problem" with a different (albeit not perfect). That might help narrow this down to PA tubes. But if it is the PA tubes, I would think the "problem" PA tubes put into a working T4XC would also cause the TX to hang up. (or maybe not)

I want to make sure I understand what you mean when you say "BIAS supply". Is this the -50V or so coming out of my AC4 (this is set with the bias pot on the back of the AC4)? Are you saying that the "negative voltage" coming out of the AC4 should ideally be DIFFERENT my rig is in standby (with relay open), when relay is "stuck" but no RF out (relay closed), or when I am transmitting? That would be easy to test. I would just hook my DMM to where the bias comes into the rig from the AC4. Is that the "bias bus"; how "steady" is steady? How should it change under normal conditions?

Of course, it is also possible that BOTH sets of finals are "gassy" as are my 6EV7 tubes. And I think I understand you saying that holding in PTT keeps the PA on, and that heat might be a problem. Working semi-break in gives LESS time for the PA to be on, so less heat and less grid emission?

paul

[Non-text portions of this message have been removed]

20990. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 15:30:27 UTC
From: Garey Barrell
Topic: 20953 Message: 20990

Paul -

Any time the relay is closed, the PA is dissipating IDLE current. Since heating seems to have
such an effect, (between semi-breakin and PTT,) it sure sounds like grid emission.

The BIAS supply is the -60 VDC coming into the T-4XB from the AC-4. I thought you had 'rebuilt'
the AC-4?? I've got three different T-4XB 'projects' going at the moment and I'm having trouble keeping them straight....

The fact that the IDLE current on the PA tubes increased that much makes them highly suspicious. The PA tubes put into a T-4XC may or may not work the same. The circuitry is different in the two.

Turn the transmitter on 'cold', set the idle current and then measure the BIAS supply at the
connector and at the second feedthrough from the front on the PA shield. The one with the 1.5k
resistor on the inside. Then let the transmitter heat up, transmit into a dummy load, for 15 -
20 minutes or until you see the IDLE current increase, and then measure the connector and feedthrough voltages again.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> I certainly do not know if these PA tubes are good. I have a "bad" set of PA tubes that go into oscillation if I tune up and up and up and I get TONS of output (about 150 watts), but I could probably try the "bad" PA tubes in the T4XB (keeping output at 90 watts or so) and see if I have the same "hang-up problem" with a different (albeit not perfect). That might help narrow this down to PA tubes. But if it is the PA tubes, I would think the "problem" PA tubes put into a working T4XC would also cause the TX to hang up. (or maybe not)
>
> I want to make sure I understand what you mean when you say "BIAS supply". Is this the -50V or so coming out of my AC4 (this is set with the bias pot on the back of the AC4)? Are you saying that the "negative voltage" coming out of the AC4 should ideally be DIFFERENT my rig is in standby (with relay open), when relay is "stuck" but no RF out (relay closed), or when I am transmitting? That would be easy to test. I would just hook my DMM to where the bias comes into the rig from the AC4. Is that the "bias bus"; how "steady" is steady? How should it change under normal conditions?

>
> Of course, it is also possible that BOTH sets of finals are "gassy" as are my 6EV7 tubes. And I think I understand you saying that holding in PTT keeps the PA on, and that heat might be a problem. Working semi-break in gives LESS time for the PA to be on, so less heat and less grid emission?
>
> paul
>
> [Non-text portions of this message have been removed]
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>
> Yahoo Groups Links
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20991. Re: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 16:29:18 UTC
From: K4GM-George
Topic: 20819 Message: 20991

Thanks for the info guys. After owning Drake gear since the early 1970s, I was totally caught by the reference to a double slotted AC-4. So I learned something new! When I get home I will check my spare AC-4s. I am sure that all are double slotted but will look.

73, George K4GM

On 5/14/2014 6:45 PM, Doug Coffman wrote:
>
> Lee,
>
> Thanks for the clarification, I was not aware that that existed. I
> have 8 or so AC-4 supplies and never noticed that change. I have
> noticed that one change, owner modification, was to drill a row of
> horribly aligned and shaped holes and then an fan placed loosely
> inside the cover.
>
> It never ceases to amaze me what people do to these things.
>
> Doug – N9XTF
>
> *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
> *Sent:* Wednesday, May 14, 2014 6:08 PM
> *To:* DrakeRadio@yahoogroups.com; k4gm@...
> *Subject:* Re: [DrakeRadio] WTB AC-4 Power Supply
>
>
> The earlier AC-4 power supplies had a single row of air vents near the
> top of the cover and a single row of them near the bottom of the
> cover. After that remaining ones or later ones had a double row of
> air vents near the top and a double row of air vents near the bottom
> of the cover.
> Lee, w0vt
>
>
>
> Lee,
>
> I have one or two AC-4s but not sure what you mean by "double slot".
>
> George K4GM
>
> [Non-text portions of this message have been removed]
>
>

>

[Non-text portions of this message have been removed]

20992. 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 16:23:18 UTC
From: Ken DeBower
Topic: 20992 Message: 20992

Greetings to the group. This is my first post.

I'm resurrecting a very ugly T-4x. After cleaning the chassis and contacts, and replacing one 6JB6, it works pretty well. The chassis is covered with rust and looks terrible, though the front panel looks good. The poor thing was stored in a carport for years and took quite a beating.

Now, my questions concern matching PA's.

I replaced R32 and R33 with 14.6 ohm resistors and installed two matched sylvania 6JB6's from rfparts.com. Adjusted bias and found approximately 35 ma and 20 ma plate currents by measuring voltage across R32 and R33. Clearly not matched. Not even close. Swapped tubes/sockets and got same results. So my first question is: Should one of these tubes be considered bad or are these variations normal and I just have a bad match?

Next, I paired the higher reading sylvania with one of my originals (the other original is clearly bad), adjusted bias, and now have 38 ma and 31 ma. Not great, but power goes out the antenna: 100 w on 80m and 20m, 60 w on 40m, 15m, and 10m cw. Second question: Might I adjust either R32 or R33 to get matched idle currents? Or would that just introduce new problems? It looks like it would take significant adjustment to get these currents to match.

Finally, assuming adjusting R32 or R33 is not a good idea, is the best course with these tubes to simply reduce power and transmit?

Many thanks to all posters in the group. I have learned much, and have much to learn.

Ken DeBower
AB5MX

[Non-text portions of this message have been removed]

20993. Re: [DrakeRadio] 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 17:09:14 UTC
From: Al Parker
Topic: 20992 Message: 20993

Hi Ken,
Check the screen resistors on the finals, too. They often drift of value like the cathode res. They will affect the plate current. I wasn't clear on when you swapped tubes, did the readings go with the tubes or stay with the sockets? If they went with the tubes, then it's a tube problem. I think the difference, if it goes with the tubes, is significant.
73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 5/15/2014 12:23 PM, 'Ken DeBower' ken@... [DrakeRadio] wrote:
>
>
> Greetings to the group. This is my first post.
>
> I'm resurrecting a very ugly T-4x. After cleaning the chassis and
> contacts, and replacing one 6JB6, it works pretty well. The chassis is
> covered with rust and looks terrible, though the front panel looks good.
> The poor thing was stored in a carport for years and took quite a beating.
>
> Now, my questions concern matching PA's.
>
> I replaced R32 and R33 with 14.6 ohm resistors and installed two matched
> sylvania 6JB6's from rfparts.com. Adjusted bias and found approximately
> 35 ma and 20 ma plate currents by measuring voltage across R32 and R33.
> Clearly not matched. Not even close. Swapped tubes/sockets and got same
> results. So my first question is: Should one of these tubes be
> considered bad or are these variations normal and I just have a bad match?
>
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> other original is clearly bad), adjusted bias, and now have 38 ma and 31
> ma. Not great, but power goes out the antenna: 100 w on 80m and 20m, 60
> w on 40m, 15m, and 10m cw. Second question: Might I adjust either R32 or
> R33 to get matched idle currents? Or would that just introduce new
> problems? It looks like it would take significant adjustment to get
> these currents to match.
>
> Finally, assuming adjusting R32 or R33 is not a good idea, is the best
> course with these tubes to simply reduce power and transmit?

>
> Many thanks to all posters in the group. I have learned much, and have
> much to learn.
>
> Ken DeBower
> AB5MX
>
> [Non-text portions of this message have been removed]
>
>

20994. Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 17:52:04 UTC
From: ken@...
Topic: 20992 Message: 20994

Hi Al, thanks for responding.

The problem went with the tubes. Independent of sockets.

I'll take a look at the screen resistors.

Guess I'll try to return one or both tubes.

Any thoughts on forcing idle matching currents by adjusting cathode resistors?

Ken
AB5MX

[Non-text portions of this message have been removed]

20995. Re: [DrakeRadio] 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 18:12:18 UTC
From: w5rkl@...
Topic: 20992 Message: 20995

Al,

I looked at your Drake webpage, saw your R4A receiver serial number 6850G. My R4A, serial number is 6829G, very close to the same run as your R4A. I'm not the original owner, I purchased the R4A recently from Paul R, I think he's a member of this group. It had a bad power transformer, Paul and I both knew that, so I replace it with a new, not rewound, power transformer from Hayboer Transformers out of Grand Haven, Mich for $80 (see link below). The plate resistor in the pre-mixer stage was cracked in half, just barely making contact, causing reduced receiver gain. Replaced the resistor, the can cap and a few other electrolytic caps from Hayseedhamfest plus the power transformer and the receiver started working quite well. The alignment was off a bit, mostly in the Bandpass adjustment. Once that was taken care of the receiver works great. The new transformer doesn't have the dual primary winding so the receiver can only be powered from 120VAC. I made a note of that in the manual so any new owner, if I decide to sell it later on, will know.

Just thought I would comment about that.

Heyboer Transformer - Top http://www.heyboertransformers.com/

http://www.heyboertransformers.com/

Heyboer Transformer - Top http://www.heyboertransformers.com/ Single phase and three phase power transformers Small printed circuit to 30 KVA Complete prototype design and product testing Custom power a...

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Preview by Yahoo

73
Mike W5RKL

[Non-text portions of this message have been removed]

20996. tr-7 tuning knob setscrew

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-15 20:52:02 UTC
From: geoffrey mendelson
Topic: 20996 Message: 20996

Anyone know the specs for the setscrew in the tuning knob of a TR7?

Seems insignificant, but I have no other way of getting one except asking someone I pay to do these things, so it is easier and a lot cheaper to order it from eBay. :-(

TIA and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

20997. Re: [DrakeRadio] TR-7 success

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 00:56:35 UTC
From: Chgypsy@...
Topic: 20970 Message: 20997

the best thing I have is an MFJ antenna analyzer.

Geoff,

NOT true, you have a fine frequency counter, its called a TR7, to 150 MHz
You can feed it its own PTO signal.

Hopefully at this point, this will be the last repair question for a
while, what is the threading of the set screw in the main tuning knob?

If you don't get an answer I will pull a knob and measure the thread.

Carl WD8NHK

[Non-text portions of this message have been removed]

20998. Re: [DrakeRadio] tr-7 tuning knob setscrew

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 01:17:32 UTC
From: Chgypsy@...
Topic: 20996 Message: 20998

, DrakeRadio@yahoogroups.com writes:

Anyone know the specs for the setscrew in the tuning knob of a TR7?

Seems insignificant, but I have no other way of getting one except
asking someone I pay to do these things, so it is easier and a lot
cheaper to order it from eBay. :-(

Geoff.
Try 9/16 inch long, slotted, 32 TPI, and I believe a # 6.
Carl WD8NHK

[Non-text portions of this message have been removed]

20999. Re: [DrakeRadio] tr-7 tuning knob setscrew

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 01:24:05 UTC
From: geoffrey mendelson
Topic: 20996 Message: 20999

On 5/16/2014 4:17 AM, Chgypsy@... [DrakeRadio] wrote:
>
>
> Try 9/16 inch long, slotted, 32 TPI, and I believe a # 6.
> Carl WD8NHK
>
Thanks. I appreciate it.

73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21000. Re: [DrakeRadio] tr-7 tuning knob setscrew

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 02:10:22 UTC
From: Jim Shorney
Topic: 20996 Message: 21000

I was going to say 6-32 UNC thread, but didn't have the other info at hand.
Thanks to Carl for filling in the blanks.

73

-Jim
NU0C

On Thu, 15 May 2014 21:17:32 -0400 (EDT), Chgypsy@... [DrakeRadio] wrote:

>
>
>, DrakeRadio@yahoogroups.com writes:
>
>Anyone know the specs for the setscrew in the tuning knob of a TR7?
>
>Seems insignificant, but I have no other way of getting one except
>asking someone I pay to do these things, so it is easier and a lot
>cheaper to order it from eBay. :-(
>
>
>Geoff.
>Try 9/16 inch long, slotted, 32 TPI, and I believe a # 6.
>Carl WD8NHK
>
>
>[Non-text portions of this message have been removed]
>
>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750,
IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn
for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

21001. Re: [DrakeRadio] Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 05:06:56 UTC
From: Richard Knoppow
Topic: 20992 Message: 21001

----- Original Message -----
From: "ken@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 15, 2014 10:52 AM
Subject: [DrakeRadio] Re: 6JB6 Matching Questions

> Hi Al, thanks for responding.
>
> The problem went with the tubes. Independent of sockets.
>
>
> I'll take a look at the screen resistors.
>
>
> Guess I'll try to return one or both tubes.
>
>
> Any thoughts on forcing idle matching currents by
> adjusting cathode resistors?
>
>
> Ken
> AB5MX
>

I am sure Garey will have more authoritative
information but I will give this a shot. I have a T4XB, not
an A but I think they are similar. The screen resistors are
there for decouping the screens and along with the small
value capcitors isolating them from the screen voltage
supply. They do not set the screen voltage, that is set by
the large higher value resistor in series with both tubes.
The resistors should be about the same value as should the
cathode resistors be about the same value. None of these
resistors should be varied to change the cathode current,
the output stage will not operate correctly.
The cathode resistors do not set the bias, that is set
from a negative supply connected to the control grids. Both
tubes are supposed to operate with the same voltages on them
as thought they were one larger tube. The idea of matching
is to insure that one tube does not carry more than its
share of the output power.
Assuming the cathode resistors are matched in value you
can measure the relative cathode current of the tubes by
measuring the voltage drop across each. This value will be

the same if the tubes are matched. The matching is really for a number of tube constants, mostly for mutual transconductance or Gm. The tube constants are determined by all sorts of things; the condition of the filament being very important but also the tube is sensitive to very small variations in the geometry of the elements and small amounts of gas and other things. If a tube has been worked hard or overloaded the filament output can be reduced. A tube with a tired filament will have low plate current when the voltages on all electrodes are correct.
If the tubes have different cathode current and the current follows the tube they are not matched and if there is a lot of difference something is wrong with one or both of the tubes. You may be able to determine this by comparison with several other tubes but of course the best way is to measure the tube on a good tube tester. Unfortunately, not many hams have tube testers at least those set up to check compactron tubes. The in place measurement of cathode current with a comparison to a couple of other tubes is sufficient at least to tell you if you have some bad guys.
There is been considerable discussion in this list about tubes that can be used in place of the 6BJ6, at the moment (its past my bed time) I can't think of the ones usually recommended but someone here will remind us. These tubes are generally cheaper and more easily availble than the 6JB6 and require only re-setting the neutralization.
Note that the voltages and currents are those at which the final amplifier will deliver _low distortion_. It may be possible to get more power out but the quality of the signal will become degraded. The distortion in an RF amplifier is not quite the same as in an audio amplfier, its not audible as distortion but produces spurious signals near the desired one. Of course they can also make the transmitter sound bad but will be causing QRM before that happens.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21002. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 14:38:29 UTC
From: Garey Barrell
Topic: 20918 Message: 21002

David -

This is normal. Remember how TUNE works.... A 1 kHz audio tone is applied to the BAL MOD, just
like whistling into the mic..... So a double sideband signal comes out of the BAL MOD, and the
desired single sideband is chosen by the filter selected.! CW and AM are done by shifting the CAR OSC into the LSB filter bandwidth and the BAL MOD is unbalanced to allow it through, and
then it goes on through the LSB filter. So for these modes, the LSB (X-) filter must be chosen.

The TR-4 does it differently. There the TUNE mode is accomplished the same way CW is done in
the T-4X(any), so here the LSB filter (X-) must be chosen.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
>
> Question? T-4XB
> I noticed that it has a tune up carrier on either sideband?
> I thought it should only tune in the "X" position ie lower side. Is this a problem?
> David - KX7C
>

21003. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 21:39:56 UTC
From: garywinblad@...
Topic: 20922 Message: 21003

Interesting...
So there really must have been 3 early (13tube) versions of the R4A:

1. 5KHz markings, NO vernier. This is the one I had "back in the day", don't know what serial it was.
Was a ham store demo model sold off after a time, must have been a really early one.

2. 5KHz markings, vernier. Like you two guys have.

3. 25KHz markings, vernier, like I have now, (since 1980).

73,
Gary
WB6OGD

[Non-text portions of this message have been removed]

21004. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 22:47:07 UTC
From: David Nichols
Topic: 20918 Message: 21004

Ok then, I was just wondering because it was something I wasnt sure about. (The tune signal)

I received my AC-4 bebuild kit today so Im working on the power supply now.
Ill get back to the rig later but on the neutralizing, I checked on 40M and 10M and it seemed to be ok. The power dropped of on either side of the dip. Those tubes are different but they almost had the same Gm and one drew .06 ma than the other. I have the other set coming but I dont think they will work any better.

"note for the group"

I still need to get some parasitic suppressors for the T-4XB if anyone has some they can sell, one broke on me.

David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: David Nichols <hamcomm7@...>; DrakeRadio@yahoogroups.com
Sent: Friday, May 16, 2014 7:38 AM
Subject: Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

David -

This is normal. Remember how TUNE works.... A 1 kHz audio tone is applied to the BAL MOD, just
like whistling into the mic..... So a double sideband signal comes out of the BAL MOD, and the
desired single sideband is chosen by the filter selected.! CW and AM are done by shifting the CAR OSC into the LSB filter bandwidth and the BAL MOD is unbalanced to allow it through, and
then it goes on through the LSB filter. So for these modes, the LSB (X-) filter must be chosen.

The TR-4 does it differently. There the TUNE mode is accomplished the same way CW is done in
the T-4X(any), so here the LSB filter (X-) must be chosen.

73, Garey - K4OAH
Glen Allen, VA

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David Nichols wrote:
>
> Question? T-4XB

> I noticed that it has a tune up carrier on either sideband?
> I thought it should only tune in the "X" position ie lower side. Is this a problem?
> David - KX7C
>

[Non-text portions of this message have been removed]

21005. Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:10:50 UTC
From: rochep@...
Topic: 21005 Message: 21005

I am not afraid of embarrassing myself in public, so here goes!!! I am not sure I am "measuring the voltage drop across R36 to set the bias at 70 mA" in my T4XB.

1. I am using a DMM, not a VTVM, but anyway... I am NOT simply hooking one end of my DMM probe to one side of R36 and the OTHER end of my DMM probe to the other side of R36 and then looking at the meter when I flip the FUNCTION switch from SSB to TUNE.

What I am doing is this: There are TWO ends of R36, I will call one end the FRONT and the other end the REAR (as I look at the resistor). I measure voltages on each probe in both SSB and in TUNE (gain at minimum).

FRONT end SSB setting >>149.2 V and FRONT end TUNE setting 227 mV
REAR end SSB setting >>149.1 V and REAR end TUNE setting 10 mV

So the difference in the TUNE setting is 227-10=217 mV. With 3.3 ohm resistor >> 66 mA.

Am I doing this correctly?

paul

[Non-text portions of this message have been removed]

21006. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:11:41 UTC
From: n1ohn@yahoo.com
Topic: 20918 Message: 21006

Dave I see several EBay listings for 47ohm 5w resistors if you don't have any luck in the group. Check your email because a lot people in the group will email you on the side with parts to help you out :)
Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21007. Re: [DrakeRadio] Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:25:54 UTC
From: n1ohn@yahoo.com
Topic: 21005 Message: 21007

Paul

Your in the ball park at 227. Measure directly across r36 I think is the simpler way. -70ma X 3.3ohm is 231mvdc.

Clips of your DVM should go directly on each side of r36. Turn the bias till you get 231mvdc give or take.

Dave :)

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21008. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:25:20 UTC
From: David Nichols
Topic: 20918 Message: 21008

Ok Dave, I was hoping someone had some spare ones. Its working but Ill have to patch it up when I break it off again. Either that or take a swing at rolling my own. hi hi
David - KX7C

From: "'n1ohn@...' n1ohn@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>; "k4oah@..." <k4oah@...>
Sent: Friday, May 16, 2014 4:11 PM
Subject: Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Dave I see several EBay listings for 47ohm 5w resistors if you don't have any luck in the group. Check your email because a lot people in the group will email you on the side with parts to help you out :)
Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21009. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:46:16 UTC
From: rochep@...
Topic: 20922 Message: 21009

All this R4A talk got me looking at my R4A. I got an "authentic" R4A knob/skirt from Lawrence (in this group). (I have just posted some pictures in the PHOTO section). But I notice the skirt sits about 1/4 off of the faceplate when pushed back as "far" as it can go; it can not go back any more because of that cotter-pin you can see in the photo. (the U shaped tension washer moves back toward cotter pin in use). Is this what ALL R4 shafts look like, it is "normal" for the skirt to sit that far OFF the face. Is this why they make the "slanted" skirts for the R4B/C??
paul

[Non-text portions of this message have been removed]

21010. Re: [DrakeRadio] T-4XB 40 AND 20 METER XTALS??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 23:49:58 UTC
From: David Phillips
Topic: 20918 Message: 21010

Good luck doing that Dave lol :) PS....I think you can go with 50ohm 3w that's easier to find I'd try to get them at 5% tolerance or less.

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21011. Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 00:11:58 UTC
From: rochep@...
Topic: 21005 Message: 21011

Thanks Dave,

I told you I was not afraid to be stupid!! I thought maybe if I directly went across R36 something bad would happen. (That's what you get when you really don't understand electricity).

I know I can also make these measurements ABOVE the chassis. So when GASSY final PA tubes make the bias go up in value, I can see this as an increase in the voltage across R36? After a 5 minute warm up, what is an "acceptable" increase in voltage across R36 over (say) a 30 min period of time? Is an increase from 70>>72 mA tolerable?

paul

[Non-text portions of this message have been removed]

21012. Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 00:24:22 UTC
From: rochep@...
Topic: 21005 Message: 21012

I set BIAS to 231 mA with 3.3 ohm resistor for 70 mA after 3 minute warm up.

Then I wanted to see how stable the BIAS is in TUNE:
in TUNE for 30 seconds went from 255 mA to 278 mA, another 30 seconds and it went up to 300 mA

(I guess BIAS increased from 231 mA to 255 mA between setting it and beginning experiment).

Then I let PA tubes cool off in SSB mode and repeated experiment:
in TUNE for 30 seconds went from 250 mA to 256 mA, another 30 seconds and it went up to 271 mA

Is this an example of me setting the initial bias too low and then gassy finals increasing the bias over time? I am trying to figure out a problem with sticky T/R relay and some ideas are gassy finals and problem with BIAS.

paul

[Non-text portions of this message have been removed]

21013. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 00:29:48 UTC
From: n1ohn@yahoo.com
Topic: 21005 Message: 21013

Paul

Stupid is not trying ;)

I'd let the radio warm for 30m before adjusting the bias. Then after you adjusted tune it into a dummy load at full power say on 10m. Then let it ideal away not in TX and not in TUNE just power on for another 30m. Then tune again into a dummy load one more time. Now in ideal check your r36 it should be still around -70ma or in your case around 231mvdc.

If your tubes have Gass then hopefully that will get some out. Your tubes are they old or NOS tubes you just installed?

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21014. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-16 22:43:57 UTC
From: gpastover@...
Topic: 20922 Message: 21014

Hi Gary, thanks for the reply. One of my ms-4 speakers has the w4 watt meter in the grill. I was told it probably was a prototype from the 70's. Only the meter and components are mounted in the grill, not the whole w4. It also has a factory plate under the meter for 200-2000 reverse and forward settings. I sent a picture to Ron baker and he said it was professionaly done. But he wasn't sure if it was a prototype. I did add the ms4 emblem to the grill. At any rate, there may only be a very few in existence, and it is also as close to mint as you can get. Maybe other drake collectors have seen or heard of one. I can send pictures if anyone is interested.
Thanks again Gary , Dave. W6dst. "73".

Sent from my iPad

> On May 16, 2014, at 2:39 PM, "garywinblad@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Interesting...
> So there really must have been 3 early (13tube) versions of the R4A:
>
> 1. 5KHz markings, NO vernier. This is the one I had "back in the day", don't know what serial it was.
> Was a ham store demo model sold off after a time, must have been a really early one.
>
> 2. 5KHz markings, vernier. Like you two guys have.
>
> 3. 25KHz markings, vernier, like I have now, (since 1980).
>
> 73,
> Gary
> WB6OGD
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21015. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 00:54:13 UTC
From: rochep@...
Topic: 21005 Message: 21015

OK, I'll do this. Maybe I have been setting the bias when the radio really wasn't warmed up. The tubes are the ones that came with my T4XB. I don't really know what "gassy" is, but do you mean I can actually " let the gas out" and they will be "better" (not gassy anymore). I thought gassy was a defect and once gassy always gassy? (sort of like my grandfather was; different kind of gas I think).

paul

[Non-text portions of this message have been removed]

21016. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 01:12:59 UTC
From: n1ohn@yahoo.com
Topic: 21005 Message: 21016

Well yes and no some times running tubes for an hour or so will work (and thats controversial) however we need to make sure you have that radio nice and warmed up before we can make a determination or valid adjustments. I'm know expert with this radio and with that in mind let's first find out were we are with the radio warmed up bias adjusted and if were getting full power on 10m :)

Dave

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21017. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 01:24:14 UTC
From: Garey Barrell
Topic: 20922 Message: 21017

Gary -

I believe you are correct, the R-4 didn't have the vernier, and I think it was added VERY early
in production. I've never seen an "A" without a vernier, but seems like a vague memory is trying to push out! :-) It would not have surprised me if Drake hadn't switched over the the
"A" and had a few early ones 'left over'. Drake was pretty good about responding to user's suggestions.

The R-4 actually worked ok, and was really faster changing bands, but needed a little 'safecracker's touch' on 10M! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

garywinblad@... [DrakeRadio] wrote:
> Interesting...
> So there really must have been 3 early (13tube) versions of the R4A:
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>
> 73,
> Gary
> WB6OGD
>
>

21018. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 01:44:33 UTC
From: Garey Barrell
Topic: 21005 Message: 21018

Paul -

IF the idle current drifts up after 5-10 minutes or more, it's probably 'Gas', or probably in
this case more accurate to say 'Grid Emission'.

Small flecks (chunks) of Cathode coating material flake off due to mistreatment (off resonance
operation mostly) or just overload, or even just age. These chunks stick to the Grid of the tube, and as it heats up, (beyond 'warm-up',) they get hot enough that they start giving off
electrons as well, which go to the Plate just like the rest of crowd. Those electrons leaving
drive the Grid more positive, increasing whatever the set idle current is. It is a snowball effect, and in some cases can result in the Grid losing control entirely. Mostly this occurs
within 5-20 minutes, whereas a resistor or other component heating up will happen faster than
that, and almost always 'run away' or snowball producing smoke.

We see a similar effect in the 12BA6 especially, in the IF of the 4 Series receivers, where the
S-Meter is set to zero at the start, but then 'drifts' up (Or down) over the first 10-20 minutes
of operation, depending upon which tube is 'gassy.

73, Garey - K4OAH
Glen Allen, VA

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rochep@... [DrakeRadio] wrote:
> OK, I'll do this. Maybe I have been setting the bias when the radio really wasn't warmed up. The tubes are the ones that came with my T4XB. I don't really know what "gassy" is, but do you mean I can actually " let the gas out" and they will be "better" (not gassy anymore). I thought gassy was a defect and once gassy always gassy? (sort of like my grandfather was; different kind of gas I think).
>
> paul
>

21019. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 01:54:01 UTC
From: Steve Wedge
Topic: 20922 Message: 21019

I actually have an R-4 with a vernier. It was added but may have been a factory add, as the quality is very good.

I'll second the safecracker remark about 10m!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 16, 2014, at 9:24 PM, "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Gary -
>
> I believe you are correct, the R-4 didn't have the vernier, and I think it was added VERY early
> in production. I've never seen an "A" without a vernier, but seems like a vague memory is
> trying to push out! :-) It would not have surprised me if Drake hadn't switched over the the
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> Glen Allen, VA
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> <www.k4oah.com>
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> > Was a ham store demo model sold off after a time, must have been a really early one.
> >
> > 2. 5KHz markings, vernier. Like you two guys have.
> >
> > 3. 25KHz markings, vernier, like I have now, (since 1980).
> >
> > 73,

> > Gary
> > WB6OGD
> >
> >
>
>

[Non-text portions of this message have been removed]

21020. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 02:07:20 UTC
From: Garey Barrell
Topic: 20922 Message: 21020

Steve -

What's the s/n on the R-4??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Steve Wedge w1es1982@... [DrakeRadio] wrote:
> I actually have an R-4 with a vernier. It was added but may have been a factory add, as the quality is very good.
>
> I'll second the safecracker remark about 10m!
>
> Steve Wedge, W1ES/4
>
>
> Sent from my iPhone; please excuse any typographical malaprops.
>
>> On May 16, 2014, at 9:24 PM, "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>>
>> Gary -
>>
>> I believe you are correct, the R-4 didn't have the vernier, and I think it was added VERY early
>> in production. I've never seen an "A" without a vernier, but seems like a vague memory is
>> trying to push out! :-) It would not have surprised me if Drake hadn't switched over the the
>> "A" and had a few early ones 'left over'. Drake was pretty good about responding to user's
>> suggestions.
>>
>> The R-4 actually worked ok, and was really faster changing bands, but needed a little
>> 'safecracker's touch' on 10M! :-)
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>

>>
>> garywinblad@... [DrakeRadio] wrote:
>>> Interesting...
>>> So there really must have been 3 early (13tube) versions of the R4A:
>>>
>>> 1. 5KHz markings, NO vernier. This is the one I had "back in the day", don't know what serial it was.
>>> Was a ham store demo model sold off after a time, must have been a really early one.
>>>
>>> 2. 5KHz markings, vernier. Like you two guys have.
>>>
>>> 3. 25KHz markings, vernier, like I have now, (since 1980).
>>>
>>> 73,
>>> Gary
>>> WB6OGD
>>>
>>>

21021. Help tuning TX4B transmitter.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 02:36:36 UTC
From: kf5tjc@...
Topic: 21021 Message: 21021

I've followed the directions in my owner's manual. Adjusted the AC4 pot to get about .07 plate current. Put the radio into Tune, adjust the RF Gain about one mark.....I followed the instructions to the letter but the meter never goes above that .07 mark. I can't "dip" the plate current so I can't go any further. What am I doing wrong? I'm very new to old radios and not much of an electrical techie type. These B "Twins" were given to me, along with the power supply/speaker and an antenna tuner (also an Astatic D104 mic). The only HF radio I've ever used is my Icom 718, and I've only been on HF since Feb of this year. I'm very new. I've tried searching Youtube for an instructional video but came up empty. Can anyone help me?
Jared
KF5TJC

[Non-text portions of this message have been removed]

21022. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 03:14:50 UTC
From: rochep@...
Topic: 21005 Message: 21022

OK Dave, Here goes. I've been at this most of the night.

Turn on T4XB at 10:00, at 10:15 pm set bias to 231 mV.
At 10:30 Tune up on 10 M CW max 178 watts input/100 watts out >>55% efficient. Not bad. Bias is now 237 mV. Not too bad a drift for 30 min. Put TX in standby (SSB)
At 11:00, re-tune on 10M (all settings stay about the same). Now 169W input/93 watts out >>55% efficient. Still good. Now bias is 250 mV. Crept up more than I like, I now re-adjusted it to 231 mV.

Since I USE the TX after about 10 minute warm up, I should set bias based on this. My bias MIGHT creep up a bit with these PA tubes, but no so horrible.

And 100 watts out on 10M, pretty good.

paul

[Non-text portions of this message have been removed]

21023. Re: [DrakeRadio] Help tuning TX4B transmitter.

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 03:22:46 UTC
From: Garey Barrell
Topic: 21021 Message: 21023

Jared -

Welcome to the group!

I think you'll need to turn the GAIN control up to about 10 o'clock to get any drive. BE READY
to dip the Plate!! More PA tubes are destroyed by failure to KEEP the Plate dipped than any other factor. Start with the LOAD control Minimum, full CCW.

The key to long PA life is 'Dip the Plate, first, last and always'.

Best to start on 40M as adjustments are a little less touchy there until you get a feel for it.
Once you get it dipped, increase the GAIN to about 11 o'clock. Then increase the LOAD control a
little CW, the plate current will increase, dip it again immediately. Repeat until increasing
the LOAD control further CW or until the DIP at minimum is around 340 mA.

If you have an output meter you can follow the above and just tune PLATE and LOAD controls for
maximum output. Dip the Plate.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

kf5tjc@... [DrakeRadio] wrote:
> I've followed the directions in my owner's manual. Adjusted the AC4 pot to get about .07 plate current. Put the radio into Tune, adjust the RF Gain about one mark.....I followed the instructions to the letter but the meter never goes above that .07 mark. I can't "dip" the plate current so I can't go any further. What am I doing wrong? I'm very new to old radios and not much of an electrical techie type. These B "Twins" were given to me, along with the power supply/speaker and an antenna tuner (also an Astatic D104 mic). The only HF radio I've ever used is my Icom 718, and I've only been on HF since Feb of this year. I'm very new. I've tried searching Youtube for an instructional video but came up empty. Can anyone help me?
> Jared
> KF5TJC
>
>

21024. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 03:22:44 UTC
From: rochep@...
Topic: 20953 Message: 21024

Hi Garey,
Yes, this is a re-built AC4.

I did what you said with the BIAS supply voltages.

When COLD:
at connector is -53.8V in SSB and -53.3V in TUNE.
-51.6V at feedthru (one side of 1.5K resistor) and -51.4V on TUBE side of the resistor

When it gets HUNG UP:
-51.0V at feedthru and when relay releases reads -51.7V (just like cold)
-50.8V on TUBE side of resistor and when relay releases reads -51.5V (just like cold)

Does this tell you anything (other than to really know WHAT is happening I have to cough up $70 for a matched pair of 6JB6 tubes!).

paul

[Non-text portions of this message have been removed]

21025. Re: [DrakeRadio] Re: Checking Bias across R36

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 03:23:06 UTC
From: n1ohn@yahoo.com
Topic: 21005 Message: 21025

Sounds like you may have a gassy 6JB6 however your IMD may be not to bad in this case. Garey gave a great explanation of this in the last post to you and I ..... Garey what do you think?

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21026. 2A for sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 05:00:59 UTC
From: David Nichols
Topic: 21026 Message: 21026

It looks pretty good, I dont know about the price but I thought I would put it out there I dont know the guy, I just search the list from time to time.

Vintage RL DRAKE Co*Model 2-A Communication RECEIVER*Tube*HAM - $350 (Umatilla)
Vintage RL DRAKE Co*Model 2-A Communication RECEIVER*Tube*HAM

Vintage RL DRAKE Co*Model 2-A Communication RECE...
I'm not a ham radio person so I know nothing about it. My Grandfather had this with other ham equipment. He took very good care of his stuff. I did plug it in and...
View on portland.craigslist.org Preview by Yahoo

[Non-text portions of this message have been removed]

21027. Re: [DrakeRadio] Re: T4XB relay gets stuck

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 14:03:26 UTC
From: Garey Barrell
Topic: 20953 Message: 21027

Paul -

Sure sounds like finals. You'll notice when the relay hangs up that there is a full volt drop
across that resistor. I suspect it would only increase with further 'heat'. There should be zero Grid current, but obviously there is some even when cold.

I have to admit I've never thought about this, and may be off base, but it sure looks suspicious
to me. Another key to me is that I find the BIAS voltage for a good set of finals to be closer
to -60V than -50V, which indicates the tubes need a little less BIAS to run IDLE current.

You could try ONE tube at a time, in the same socket, and measure the idle current individually. This might show one tube is in worse shape than the other, which would increase
confidence in the result. Or they could both just be equally 'soft'.

If cost is a concern, you could use a couple of 6GJ5s. You could buy six of those for less than
a 'matched pair' of 6JB6s and make your own 'matched pair(s)'. As long as you stay with the 'big 4' brands, they work as well as 6JB6s. Some seem to have problems on 10M, but I've not run into that yet. Try to get all of one brand, as the chances of matched pairs are better.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> Hi Garey,
> Yes, this is a re-built AC4.
>
> I did what you said with the BIAS supply voltages.
>
> When COLD:
> at connector is -53.8V in SSB and -53.3V in TUNE.
> -51.6V at feedthru (one side of 1.5K resistor) and -51.4V on TUBE side of the resistor
>
> When it gets HUNG UP:
> -51.0V at feedthru and when relay releases reads -51.7V (just like cold)
> -50.8V on TUBE side of resistor and when relay releases reads -51.5V (just like cold)
>
> Does this tell you anything (other than to really know WHAT is happening I have to cough up $70 for a matched pair of 6JB6 tubes!).

>
> paul
>
>

21028. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 14:16:37 UTC
From: Garey Barrell
Topic: 20922 Message: 21028

Paul -

You have an 'extra' circlip on the shaft. The guy who swapped the knob added a circlip to move
the knob out away from the panel. Most of us just moved the 'original' one out a bit.

By the way, those clips WILL break!! (Ask me, just ask me.....!) You need to use circlip pliers (auto store, $5) and only expand it enough to slide off the end of the shaft. SAVE it,
as those are just about impossible to find. They are MUCH stronger and heavier than you find in
the typical auto/hardware store.

So remove the extra one, and you'll probably find the original is in the right place. If it puts the knob too close, use your circlip pliers to move it out enough to clear.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> All this R4A talk got me looking at my R4A. I got an "authentic" R4A knob/skirt from Lawrence (in this group). (I have just posted some pictures in the PHOTO section). But I notice the skirt sits about 1/4 off of the faceplate when pushed back as "far" as it can go; it can not go back any more because of that cotter-pin you can see in the photo. (the U shaped tension washer moves back toward cotter pin in use). Is this what ALL R4 shafts look like, it is "normal" for the skirt to sit that far OFF the face. Is this why they make the "slanted" skirts for the R4B/C??
> paul
>
>

21029. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 14:27:41 UTC
From: Joe - W7RKN
Topic: 20922 Message: 21029

In the automotive world, we called 'em, *Jesus Clips*! ('Cause that is what was uttered when one went flying...you watched it land, and one *STILL COULD NOT* find the SOB!)

Joe - W7RKN

----- Original Message -----
From: "Garey Barrell k4oah@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Re: Restored R-4A Photos

> By the way, those clips WILL break!! (Ask me, just ask me.....!) You
> need to use circlip
> pliers (auto store, $5) and only expand it enough to slide off the end of
> the shaft. SAVE it,
> as those are just about impossible to find. They are MUCH stronger and
> heavier than you find in
> the typical auto/hardware store.

21030. Re: [DrakeRadio] 2A for sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 15:06:22 UTC
From: Barry
Topic: 21026 Message: 21030

Wow. That chassis sure is in nice condition!

Barry - N4BUQ

----- Original Message -----
> From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Saturday, May 17, 2014 12:00:59 AM
> Subject: [DrakeRadio] 2A for sale
>
> It looks pretty good, I dont know about the price but I thought I
> would put it out there
> I dont know the guy, I just search the list from time to time.
>
> Vintage RL DRAKE Co*Model 2-A Communication RECEIVER*Tube*HAM - $350
> (Umatilla)
> Vintage RL DRAKE Co*Model 2-A Communication RECEIVER*Tube*HAM
>
>
> Vintage RL DRAKE Co*Model 2-A Communication RECE...
> I'm not a ham radio person so I know nothing about it. My Grandfather
> had this with other ham equipment. He took very good care of his
> stuff. I did plug it in and...
> View on portland.craigslist.org Preview by Yahoo
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21031. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 15:57:55 UTC
From: rochep@...
Topic: 20922 Message: 21031

This "extra" clip is in exactly the same place as the "extra" clip on my T4XB. Yep, if I can just shove it back a bit (so it will give the C-washer something to "push" against) that will be great. I assume "regular" pliers or a screwdriver won't do the job. Hate to pay $5+ for something I'll use once.

Am I correct in thinking this is NOT in a groove in the shaft, it is just "pinched" in there?

paul

[Non-text portions of this message have been removed]

21032. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 16:17:25 UTC
From: Garey Barrell
Topic: 20922 Message: 21032

Paul -

OK. $5 will sound cheap after you break it!! No groove, just really tight! Obviously you can't just 'shove it' back, kinda defeats the purpose..! :-) You need a tool with two 'pins'
that you can put in the holes in the circlip. You need to apply _very little_, _controlled_ 'outward' pressure to expand it just enough to slip. Just a little too much pressure, and it
will become a two-part item, both of which will disappear. I'd also suggest safety glasses, even it they do cost a buck or two..... As Joe said, they REALLY fly, and when they break......

Granted, I AM a 'right tool for the job' kinda guy, but ....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> This "extra" clip is in exactly the same place as the "extra" clip on my T4XB. Yep, if I can just shove it back a bit (so it will give the C-washer something to "push" against) that will be great. I assume "regular" pliers or a screwdriver won't do the job. Hate to pay $5+ for something I'll use once.
>
> Am I correct in thinking this is NOT in a groove in the shaft, it is just "pinched" in there?
>
> paul
>
>

21033. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 16:35:33 UTC
From: Joe - W7RKN
Topic: 20922 Message: 21033

Go to Harbor Freight...they have very small Circlip pliers for
sale...reasonable.

http://www.harborfreight.com/catalogsearch/result?q=circlip+pliers

or...

eBay...

http://www.ebay.com/itm/New-4-in-1-Snap-Ring-Pliers-Plier-Set-Circlip-Combination-Retainin
g-Clip-0-SHIP-/400582812789?pt=Pliers&hash=item5d4498a475

----- Original Message -----
From: "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Re: Restored R-4A Photos

> This "extra" clip is in exactly the same place as the "extra" clip on my
> T4XB. Yep, if I can just shove it back a bit (so it will give the C-washer
> something to "push" against) that will be great. I assume "regular" pliers
> or a screwdriver won't do the job. Hate to pay $5+ for something I'll use
> once.

21034. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 16:45:16 UTC
From: rochep@...
Topic: 20922 Message: 21034

Those little holes on the circlip are REALLY tiny. Will the "pins" on those Harbor Freight tools really fit into the little holes in the circlip? Or do I just use the "pins" on the tool to wedge between the opening and then squeeze to "open" them a bit? I intend to get the right tool.

paul

[Non-text portions of this message have been removed]

21035. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 16:56:59 UTC
From: Joe - W7RKN
Topic: 20922 Message: 21035

Paul....

I think the pliers come with various sized 'jaws', to work in any circlip.
My circlip pliers are 50 years old, from my days as a wrench.....You will
need to go to a store and look to find out for sure.

Joe

----- Original Message -----
From: "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Subject: Re: [DrakeRadio] Re: Restored R-4A Photos

> Those little holes on the circlip are REALLY tiny. Will the "pins" on
> those Harbor Freight tools really fit into the little holes in the
> circlip? Or do I just use the "pins" on the tool to wedge between the
> opening and then squeeze to "open" them a bit? I intend to get the right
> tool.

21036. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 17:12:56 UTC
From: geoffrey mendelson
Topic: 20922 Message: 21036

On 5/17/2014 7:45 PM, rochep@... [DrakeRadio] wrote:
>
> Those little holes on the circlip are REALLY tiny. Will the "pins" on
> those Harbor Freight tools really fit into the little holes in the
> circlip? Or do I just use the "pins" on the tool to wedge between the
> opening and then squeeze to "open" them a bit? I intend to get the
> right tool.
>

Whatever you find please post the results here. I had a nice circlip plier that worked fine on an SPR-4, and a set from DX.com that I expect is the same, or very close to the Harbor Freight set. Neither was small enough for the dial mechanism on my TR-7.

Suffice it to say a new clip (part of an assortment) is on the way, but I have no pliers to put it on. I probably can push it on without a set of pliers, but I am afraid that will be a one way trip. :-(

73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21037. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 18:06:10 UTC
From: Garey Barrell
Topic: 20922 Message: 21037

This is the exact set I got at an auto-parts store. They're probably $10 there now!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Joe - W7RKN w7rkn.7@... [DrakeRadio] wrote:
>
> eBay...
>
> http://www.ebay.com/itm/New-4-in-1-Snap-Ring-Pliers-Plier-Set-Circlip-Combination-Retaining-Clip-0-SHIP-/400582812789?pt=Pliers&hash=item5d4498a475
>
>
>
> ----- Original Message -----
> From: "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> Subject: Re: [DrakeRadio] Re: Restored R-4A Photos
>
>
>> This "extra" clip is in exactly the same place as the "extra" clip on my
>> T4XB. Yep, if I can just shove it back a bit (so it will give the C-washer
>> something to "push" against) that will be great. I assume "regular" pliers
>> or a screwdriver won't do the job. Hate to pay $5+ for something I'll use
>> once.
>

21038. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 18:12:33 UTC
From: Garey Barrell
Topic: 20922 Message: 21038

Geoff -

I couldn't find a suitable clip anywhere... I tried several assortments, and they all had the
right size for the shaft, only about half as thick all over. I could put them on the shaft, but
they wouldn't even stand up to knob pressure to compress the clutch tubing. The one Drake used
must be a heavy industrial type, perhaps someone like Grainger would have them?

So yes, you can probably just push it on, but .... :-)

Paul the eBay set is identical to the one I have, and works fine. The smaller pins go into the
holes. It 'MIGHT' work the way you describe, but you need very controlled pressure, and you
have to be able to push the clip along the shaft while applying just enough!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:
> On 5/17/2014 7:45 PM, rochep@... [DrakeRadio] wrote:
>> Those little holes on the circlip are REALLY tiny. Will the "pins" on
>> those Harbor Freight tools really fit into the little holes in the
>> circlip? Or do I just use the "pins" on the tool to wedge between the
>> opening and then squeeze to "open" them a bit? I intend to get the
>> right tool.
>>
> Whatever you find please post the results here. I had a nice circlip
> plier that worked fine on an SPR-4, and a set from DX.com that I expect
> is the same, or very close to the Harbor Freight set. Neither was small
> enough for the dial mechanism on my TR-7.
>
> Suffice it to say a new clip (part of an assortment) is on the way, but
> I have no pliers to put it on. I probably can push it on without a set
> of pliers, but I am afraid that will be a one way trip. :-(
>
> 73.
>
> Geoff.
>

21039. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 18:18:08 UTC
From: geoffrey mendelson
Topic: 20922 Message: 21039

On 5/17/2014 7:35 PM, Joe - W7RKN w7rkn.7@... [DrakeRadio] wrote:
>
>
> eBay...
>
> http://www.ebay.com/itm/New-4-in-1-Snap-Ring-Pliers-Plier-Set-Circlip-Combination-Retaining-Clip-0-SHIP-/400582812789?pt=Pliers&hash=item5d4498a475
>

The look like the ones I got from DX.com which means the pins are too
wide to fit the circlip in the TR-7.

It's also being sold with that "global shipping program" scam, where
they charge you $35 to ship it to a mail forwarder who mails it to you,
but you can't tell what the total postage would be until you buy it.

If it were sent via the US mail directly it would cost about $12. There
is about a 2% "loss" of packages sent by the USPS, but if you read the
fine print, since the eBay seller ships it to a third party in the US,
they don't have to cover any lost packages.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21040. Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 18:41:50 UTC
From: ken@...
Topic: 20992 Message: 21040

Richard:

Wow, thanks for all this. You have exactly answered, clearly, many of the questions that were swirling around unformed in my head.
Substitutes for 6JB6 I've found include 6JU6 (not so good), 6GJ5 (pretty good), 6146 (big job), and possibly 17JG6. I like this last best, tubes are inexpensive and a simple transformer could supply filament voltage.
This old girl (T-4X) I'm working on will never win a beauty contest, what with all the rust. So I don't mind adding a few things to get her to work.
Again, many thanks.

Ken DeBower
AB5MX

[Non-text portions of this message have been removed]

21041. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 18:49:34 UTC
From: David Nichols
Topic: 20922 Message: 21041

Just a thought to get you by, why not use a pair of them? If two is to thick you can emery them down to fit the groove. Rough on the finger tips but two may stand up to the pressure. You might be more able to find a jesus clip to fit the groove and work for now. The difference being, what you have is a snap ring with holes for pronged pliers to fit into for installation and removal. The jesus clip doesnt have the holes, it just snaps in and then when you take it off you never know where the heck it flew off to. You have to be very crafty to take one off and keep it. I dont know if you are wanting something to get by or forever right now.
David - KX7C

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 17, 2014 11:12 AM
Subject: Re: [DrakeRadio] Re: Restored R-4A Photos

Geoff -

I couldn't find a suitable clip anywhere... I tried several assortments, and they all had the
right size for the shaft, only about half as thick all over. I could put them on the shaft, but
they wouldn't even stand up to knob pressure to compress the clutch tubing. The one Drake used
must be a heavy industrial type, perhaps someone like Grainger would have them?

So yes, you can probably just push it on, but .... :-)

Paul the eBay set is identical to the one I have, and works fine. The smaller pins go into the
holes. It 'MIGHT' work the way you describe, but you need very controlled pressure, and you have to be able to push the clip along the shaft while applying just enough!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:
> On 5/17/2014 7:45 PM, rochep@... [DrakeRadio] wrote:
>> Those little holes on the circlip are REALLY tiny. Will the "pins" on
>> those Harbor Freight tools really fit into the little holes in the
>> circlip? Or do I just use the "pins" on the tool to wedge between the
>> opening and then squeeze to "open" them a bit? I intend to get the
>> right tool.

>>
> Whatever you find please post the results here. I had a nice circlip
> plier that worked fine on an SPR-4, and a set from DX.com that I expect
> is the same, or very close to the Harbor Freight set. Neither was small
> enough for the dial mechanism on my TR-7.
>
> Suffice it to say a new clip (part of an assortment) is on the way, but
> I have no pliers to put it on. I probably can push it on without a set
> of pliers, but I am afraid that will be a one way trip. :-(
>
> 73.
>
> Geoff.
>

[Non-text portions of this message have been removed]

21042. Re: [DrakeRadio] Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 19:12:03 UTC
From: Garey Barrell
Topic: 20992 Message: 21042

Ken -

I recommend against the 6146 mod. I've built and used many transmitters with one or two 6146
tubes, and it's a great tube.

The Drake T-4X(any) however is not well suited to them, too much VHF and up gain. The plate voltage is low, limiting 'clean' power, but most importantly no-one has ever done a thorough
evaluation of the amplifier using them. The parasitic suppressors almost certainly are not right, and the rest of the PA is designed around the 6JB6, or at least another 'similar' high
perveance sweep tube. Plus the 6JB6s cost about the same and will last just as long. The weakness of the 6JB6 is the same feature that makes it suitable for this power at this HV level.

The 6GJ5 works just as well as the 6JB6, if you stick to the big 4 brands, and neutralize them
properly. The 17JG6 is interesting, never ran across that one. There is a 17JB6 and a17GJ5 as
well in the same price range. I wonder if a voltage doubler on the filament supply with a regulator ...??? Maybe a tripler and leave the tube filaments in series. ?? Probably easier to put a small transformer in the AC-4 and keep the PA filaments in series, 0.450A current that
way. Interesting thoughts for if/when we run out of 6JB6 and 6GJ5... :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

ken@... [DrakeRadio] wrote:
> Richard:
>
> Wow, thanks for all this. You have exactly answered, clearly, many of the questions that were swirling around unformed in my head.
> Substitutes for 6JB6 I've found include 6JU6 (not so good), 6GJ5 (pretty good), 6146 (big job), and possibly 17JG6. I like this last best, tubes are inexpensive and a simple transformer could supply filament voltage.
> This old girl (T-4X) I'm working on will never win a beauty contest, what with all the rust. So I don't mind adding a few things to get her to work.
> Again, many thanks.
>
>

> Ken DeBower
> AB5MX
>

21043. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 19:15:35 UTC
From: Garey Barrell
Topic: 20922 Message: 21043

David -

Yes, I think you're thinking of a 'C-clip' or 'E-clip'. Those MUST have a groove I believe and
are even harder to control!! :-)

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Just a thought to get you by, why not use a pair of them? If two is to thick you can emery them down to fit the groove. Rough on the finger tips but two may stand up to the pressure. You might be more able to find a jesus clip to fit the groove and work for now. The difference being, what you have is a snap ring with holes for pronged pliers to fit into for installation and removal. The jesus clip doesnt have the holes, it just snaps in and then when you take it off you never know where the heck it flew off to. You have to be very crafty to take one off and keep it. I dont know if you are wanting something to get by or forever right now.
> David - KX7C
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 17, 2014 11:12 AM
> Subject: Re: [DrakeRadio] Re: Restored R-4A Photos
>
>
>
>
> Geoff -
>
> I couldn't find a suitable clip anywhere... I tried several assortments, and they all had the
> right size for the shaft, only about half as thick all over. I could put them on the shaft, but
> they wouldn't even stand up to knob pressure to compress the clutch tubing. The one Drake used
> must be a heavy industrial type, perhaps someone like Grainger would have them?
>

> So yes, you can probably just push it on, but .... :-)
>
> Paul the eBay set is identical to the one I have, and works fine. The smaller pins go into the
> holes. It 'MIGHT' work the way you describe, but you need very controlled pressure, and you
> have to be able to push the clip along the shaft while applying just enough!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> geoffrey mendelson geoffreymendelson@... [DrakeRadio] wrote:
>> On 5/17/2014 7:45 PM, rochep@... [DrakeRadio] wrote:
>>> Those little holes on the circlip are REALLY tiny. Will the "pins" on
>>> those Harbor Freight tools really fit into the little holes in the
>>> circlip? Or do I just use the "pins" on the tool to wedge between the
>>> opening and then squeeze to "open" them a bit? I intend to get the
>>> right tool.
>>>
>> Whatever you find please post the results here. I had a nice circlip
>> plier that worked fine on an SPR-4, and a set from DX.com that I expect
>> is the same, or very close to the Harbor Freight set. Neither was small
>> enough for the dial mechanism on my TR-7.
>>
>> Suffice it to say a new clip (part of an assortment) is on the way, but
>> I have no pliers to put it on. I probably can push it on without a set
>> of pliers, but I am afraid that will be a one way trip. :-(
>>
>> 73.
>>
>> Geoff.
>>

21044. Re: [DrakeRadio] Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 19:22:25 UTC
From: Richard Knoppow
Topic: 20992 Message: 21044

-----Original Message-----
>From: "ken@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
>Sent: May 17, 2014 11:41 AM
>To: DrakeRadio@yahoogroups.com
>Subject: [DrakeRadio] Re: 6JB6 Matching Questions
>
>Richard:
>
> Wow, thanks for all this. You have exactly answered, clearly, many of the questions that were swirling around unformed in my head.
> Substitutes for 6JB6 I've found include 6JU6 (not so good), 6GJ5 (pretty good), 6146 (big job), and possibly 17JG6. I like this last best, tubes are inexpensive and a simple transformer could supply filament voltage.
> This old girl (T-4X) I'm working on will never win a beauty contest, what with all the rust. So I don't mind adding a few things to get her to work.
> Again, many thanks.
>
>
> Ken DeBower
> AB5MX
>
Most of the answers can be found in the Eimac publication "Care and feeding of Power Grid Tubes" issued in several editions all of which are available free via the web. Not quite the latest is at::w5jgv.com/downloads/Eimac-pwr-grid.PDF but this one has the answers in it.
In fact, one can have individual grid bias adjustments on the tubes. This is usually done on high-power amplifiers and may be necessary when running at Class-B or near it because the bias becomes very critical and very small differences in the tubes will result in a large difference in idle current and performance. I don't think it can be used to compensate for large differences in tubes because even if the plate current is made the same the variation in current with grid voltage will not be matched, that is, the tube curves can not be made enough similar. Large variations between tubes usually indicate some problem with one or both tubes. It might be possible to compensate some differences by having individually adjustable filament voltage, again, this is found in some large amplifiers. For something like a T-4 one is really stuck with finding tubes that match each other fairly closely.
Another subject in the Eimac book is a good explanation of the various "classes" of tube operation which will help to understand the need for matching and how closely the match has to be. I believe (Garey can correct me) that the amplifiers in the T-4 series Drakes run Class-AB1, that is, they do not draw grid current. This is a fairly forgiving operating condition.
There is a lot to be considered in the operation of linear amplifiers beyond just power output. Probably keeping third-order distortion (that is intermodulation distortion) at low levels is most important along with not exceeding the tube limits. One can always get more power out if distortion is of no concern. I think drake chose operating conditions

that would keep distortion at a reasonable level despite some degree of misadjustment. The ALC prevents overdriving, I think it prevents grid current or at least keeps it below some limit. Excess grid current will kill tubes very quickly beside causing distortion to climb. Drake has done a good job in making a pretty reliable transmitter with a lot of protection from misadjustment although you must still be careful not to exceed plate current when tuning up (keep the plate dipped!!). Drake specs are very good(compare to Collins S-line) and will meet them without a lot of fuss.
I think modern solid state transmitters with all automated tuning have spoiled a whole generation of hams who are somewhat dismayed by the adjustments necessary on the older stuff. Don't be put off, the only rule you must follow is to keep the plate current dipped and not let it go high for more than a couple of seconds. Once you do a tune up a couple of times it becomes habit.

21045. Re: [DrakeRadio] WTB Drake 2B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 22:04:14 UTC
From: Chgypsy@...
Topic: 21045 Message: 21045

Hi to the group,

Was conversing with a fellow in my local club that is interested in purchasing a reasonably clean Drake 2B who asked if I would post this to the group.

If you have one you are thinking of parting with contact him directly _triton@..._ (mailto:triton@...)

Carl wd8nhk

[Non-text portions of this message have been removed]

21046. Drake L-7

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 22:24:32 UTC
From: rjhassell@...
Topic: 21046 Message: 21046

Very nice L-7 with freshly rebuilt P/S message me off group for pics and price.
Roger
rjhassell@...
w5rjh

[Non-text portions of this message have been removed]

21047. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 22:43:40 UTC
From: Steve Wedge
Topic: 20922 Message: 21047

I have, in a pinch, stacked 1/4"
Washers to space the skirt out enough. Not factory but it gets the job done!

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 17, 2014, at 10:16 AM, "Garey Barrell k4oah@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com> wrote:
>
> Paul -
>
> You have an 'extra' circlip on the shaft. The guy who swapped the knob added a circlip to
move
> the knob out away from the panel. Most of us just moved the 'original' one out a bit.
>
> By the way, those clips WILL break!! (Ask me, just ask me.....!) You need to use circlip
> pliers (auto store, $5) and only expand it enough to slide off the end of the shaft. SAVE
it,
> as those are just about impossible to find. They are MUCH stronger and heavier than you
find in
> the typical auto/hardware store.
>
> So remove the extra one, and you'll probably find the original is in the right place. If
it
> puts the knob too close, use your circlip pliers to move it out enough to clear.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> rochep@... [DrakeRadio] wrote:
> > All this R4A talk got me looking at my R4A. I got an "authentic" R4A knob/skirt from
Lawrence (in this group). (I have just posted some pictures in the PHOTO section). But I
notice the skirt sits about 1/4 off of the faceplate when pushed back as "far" as it can
go; it can not go back any more because of that cotter-pin you can see in the photo. (the U
shaped tension washer moves back toward cotter pin in use). Is this what ALL R4 shafts look
like, it is "normal" for the skirt to sit that far OFF the face. Is this why they make the
"slanted" skirts for the R4B/C??
> > paul
> >
> >
>

>

[Non-text portions of this message have been removed]

21048. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 22:45:04 UTC
From: Steve Wedge
Topic: 20922 Message: 21048

It's just resting in an ungrooved shaft.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 17, 2014, at 11:57 AM, "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> This "extra" clip is in exactly the same place as the "extra" clip on my T4XB. Yep, if I can just shove it back a bit (so it will give the C-washer something to "push" against) that will be great. I assume "regular" pliers or a screwdriver won't do the job. Hate to pay $5+ for something I'll use once.
>
> Am I correct in thinking this is NOT in a groove in the shaft, it is just "pinched" in there?
>
> paul
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21049. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-17 22:46:26 UTC
From: Steve Wedge
Topic: 20922 Message: 21049

Yes, they do. I have some.

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 17, 2014, at 12:56 PM, "Joe - W7RKN w7rkn.7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com> wrote:
>
> Paul....
>
> I think the pliers come with various sized 'jaws', to work in any circlip.
> My circlip pliers are 50 years old, from my days as a wrench.....You will
> need to go to a store and look to find out for sure.
>
> Joe
>
> ----- Original Message -----
> From: "rochep@comcast.net [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> Subject: Re: [DrakeRadio] Re: Restored R-4A Photos
>
> > Those little holes on the circlip are REALLY tiny. Will the "pins" on
> > those Harbor Freight tools really fit into the little holes in the
> > circlip? Or do I just use the "pins" on the tool to wedge between the
> > opening and then squeeze to "open" them a bit? I intend to get the right
> > tool.
>
>

[Non-text portions of this message have been removed]

21050. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 00:31:28 UTC
From: rochep@...
Topic: 20922 Message: 21050

Ordered the eBay set, I'll let the group know how it goes.

paul

[Non-text portions of this message have been removed]

21051. T-4XB OR R-4B METER REMOVAL

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 00:34:29 UTC
From: David Nichols
Topic: 21051 Message: 21051

T-4XB, 101

If you ever get the urge to remove the nuts from the back of the meter on your T-4XB or the R-4B, SLAP YOURSELF SILLY! GO POUND YOUR HEAD AGAINST THE WALL OR A POST, ANYTHING to make that urge go away. DO NOT REMOVE THOSE NUTS!

I admit, I have not read the manual front to back but I have not seen a warning about removing those nuts. If you have a rig with the same meters other than the ones I mentioned. Do not remove those nuts! Let me make myself perfectly CLEAR, DONT TOUCH THOSE NUTS, unsolder the wires.
If you remove those nuts, the meter will need to be disassembled to make repairs. If that fine little meter wire didnt break on me I may still have a working meter when Im done.
It started innocent enough, all I wanted to do was clean it up and repaint the inside reflector. To start out you have to remove the face to get the meter out and then those meter wires are so short you cant take it anywhere. The next thing I knew, a little idea turned into a full day of cleaning what I stepped in.

Thank you Garey for posting the meter pictures. I would have guessed wrong on the placement of the internal lugs. I could not believe those studs where turning on me. Turns out, they dont have a nut holding them in place and they are not fixed in any way.

While Im waiting for the paint to dry in the light reflectors I painted new lines on the knobs. Might as well, I had them off. Its cool and rainy today so paint doesnt dry very fast.

I put the rebuild kit together an successfully installed it in my second AC-4 yesterday. No smoke or sparks, good kit and good instructions, thanks WB8VGE. It really needed the rebuild, I found a couple of cold solder joints and bad caps.

Dont I know how to have fun?
David - KX7C

[Non-text portions of this message have been removed]

21052. Re: [DrakeRadio] T-4XB OR R-4B METER REMOVAL

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 00:57:52 UTC
From: Steve Wedge
Topic: 21051 Message: 21052

I had somehow been fortunate enough to have removed the nuts on at least half a dozen meters before the first one bit my butt.

That wire's insulation melts if you even give it a sultry glance, so I always cut the wire right at the lug and restrip and re solder it afterwards.

Since one really only needs to do this once every 40 or 50 years, I'm not overly concerned at losing 1/4"
Of wire....

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 17, 2014, at 8:34 PM, "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> T-4XB, 101
>
> If you ever get the urge to remove the nuts from the back of the meter on your T-4XB or the R-4B, SLAP YOURSELF SILLY! GO POUND YOUR HEAD AGAINST THE WALL OR A POST, ANYTHING to make that urge go away. DO NOT REMOVE THOSE NUTS!
>
> I admit, I have not read the manual front to back but I have not seen a warning about removing those nuts. If you have a rig with the same meters other than the ones I mentioned. Do not remove those nuts! Let me make myself perfectly CLEAR, DONT TOUCH THOSE NUTS, unsolder the wires.
> If you remove those nuts, the meter will need to be disassembled to make repairs. If that fine little meter wire didnt break on me I may still have a working meter when Im done.
> It started innocent enough, all I wanted to do was clean it up and repaint the inside reflector. To start out you have to remove the face to get the meter out and then those meter wires are so short you cant take it anywhere. The next thing I knew, a little idea turned into a full day of cleaning what I stepped in.
>
> Thank you Garey for posting the meter pictures. I would have guessed wrong on the placement of the internal lugs. I could not believe those studs where turning on me. Turns out, they dont have a nut holding them in place and they are not fixed in any way.
>
> While Im waiting for the paint to dry in the light reflectors I painted new lines on the knobs. Might as well, I had them off. Its cool and rainy today so paint doesnt dry very fast.
>
> I put the rebuild kit together an successfully installed it in my second AC-4 yesterday. No smoke or sparks, good kit and good instructions, thanks WB8VGE. It really needed the rebuild, I found a couple of cold solder joints and bad caps.
>

> Dont I know how to have fun?
> David - KX7C
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21053. Re: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 03:38:41 UTC
From: vacuuminded2@...
Topic: 20819 Message: 21053

I hadn't really ever paid attention to this either- for those curious, find attached a photo showing both style AC-4 covers. The older "single slot" cover is s/n 29937, the newer "double slot" one is s/n 43365. Just how much better the later on vents is probably trivial- but it'tiz what it'tiz.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On May 15, 2014, at 11:29 AM, "K4GM-George k4gm@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Thanks for the info guys. After owning Drake gear since the early
> 1970s, I was totally caught by the reference to a double slotted AC-4.
> So I learned something new! When I get home I will check my spare
> AC-4s. I am sure that all are double slotted but will look.
>
> 73, George K4GM
>
> On 5/14/2014 6:45 PM, Doug Coffman wrote:
> >
> > Lee,
> >
> > Thanks for the clarification, I was not aware that that existed. I
> > have 8 or so AC-4 supplies and never noticed that change. I have
> > noticed that one change, owner modification, was to drill a row of
> > horribly aligned and shaped holes and then an fan placed loosely
> > inside the cover.
> >
> > It never ceases to amaze me what people do to these things.
> >
> > Doug – N9XTF
> >
> > *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
> > *Sent:* Wednesday, May 14, 2014 6:08 PM
> > *To:* DrakeRadio@yahoogroups.com; k4gm@...
> > *Subject:* Re: [DrakeRadio] WTB AC-4 Power Supply
> >
> >
> > The earlier AC-4 power supplies had a single row of air vents near the
> > top of the cover and a single row of them near the bottom of the
> > cover. After that remaining ones or later ones had a double row of
> > air vents near the top and a double row of air vents near the bottom
> > of the cover.
> > Lee, w0vt

> >
> >
> >
> > Lee,
> >
> > I have one or two AC-4s but not sure what you mean by "double slot".
> >
> > George K4GM
> >
> > [Non-text portions of this message have been removed]
> >
> >
> >
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21054. What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 03:43:31 UTC
From: rochep@...
Topic: 21054 Message: 21054

I now know bad finals can reduce transmitter efficiency, but with the SAME finals in two different transmitters I am getting very different power outputs/efficiencies:

The SAME 6JB6 tubes in each TX, each TX set for 70 mA bias, and "aligned" as best I could.

On 10M CW into dummy load:

T4XB: 100 watts output with 0.27 A plate current>>55% efficiency
T4XC: 50 watts output with 0.27 A plate current>>31% efficiency (THIS IS MY MAX OUTPUT ON 10M WITH THE T4XC AND I GET IT IN TUNE, NOT IN CW WITH MAX GAIN)

Since the finals are the same, what else could be contributing to the low efficiency of the T4XC?

paul

[Non-text portions of this message have been removed]

21055. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 03:49:57 UTC
From: L L bahr
Topic: 21054 Message: 21055

Are you sure your meter readings are accurate and reading the actual current? If they are not, you are measuring apples and oranges.
Lee, w0vt

I now know bad finals can reduce transmitter efficiency, but with the SAME finals in two different transmitters I am getting very different power outputs/efficiencies:

The SAME 6JB6 tubes in each TX, each TX set for 70 mA bias, and "aligned" as best I could.

On 10M CW into dummy load:

T4XB: 100 watts output with 0.27 A plate current>>55% efficiency
T4XC: 50 watts output with 0.27 A plate current>>31% efficiency (THIS IS MY MAX OUTPUT ON 10M WITH THE T4XC AND I GET IT IN TUNE, NOT IN CW WITH MAX GAIN)

Since the finals are the same, what else could be contributing to the low efficiency of the T4XC?

paul

[Non-text portions of this message have been removed]

21056. Re: [DrakeRadio] WTB AC-4 Power Supply

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 03:56:18 UTC
From: Chris Farley
Topic: 20819 Message: 21056

Didn't attachments used to be allowed in this group? The photo was stripped from my last post. I've uploaded it to the files section for anyone interested-

https://groups.yahoo.com/neo/groups/DrakeRadio/photos/albums/1674427791/lightbox/1908184584

Regards,
Chris

From: "vacuuminded2@yahoo.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>; "k4gm@..." <k4gm@verizon.net>
Sent: Saturday, May 17, 2014 10:38 PM
Subject: Re: [DrakeRadio] WTB AC-4 Power Supply

I hadn't really ever paid attention to this either- for those curious, find attached a photo showing both style AC-4 covers. The older "single slot" cover is s/n 29937, the newer "double slot" one is s/n 43365. Just how much better the later on vents is probably trivial- but it'tiz what it'tiz.

Regards,
Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On May 15, 2014, at 11:29 AM, "K4GM-George k4gm@verizon.net [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Thanks for the info guys. After owning Drake gear since the early
> 1970s, I was totally caught by the reference to a double slotted AC-4.
> So I learned something new! When I get home I will check my spare
> AC-4s. I am sure that all are double slotted but will look.
>
> 73, George K4GM
>
> On 5/14/2014 6:45 PM, Doug Coffman wrote:
> >
> > Lee,
> >
> > Thanks for the clarification, I was not aware that that existed. I
> > have 8 or so AC-4 supplies and never noticed that change. I have
> > noticed that one change, owner modification, was to drill a row of
> > horribly aligned and shaped holes and then an fan placed loosely
> > inside the cover.
> >
> > It never ceases to amaze me what people do to these things.
> >

> > Doug – N9XTF
> >
> > *From:*DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
> > *Sent:* Wednesday, May 14, 2014 6:08 PM
> > *To:* DrakeRadio@yahoogroups.com; k4gm@...
> > *Subject:* Re: [DrakeRadio] WTB AC-4 Power Supply
> >
> >
> > The earlier AC-4 power supplies had a single row of air vents near the
> > top of the cover and a single row of them near the bottom of the
> > cover. After that remaining ones or later ones had a double row of
> > air vents near the top and a double row of air vents near the bottom
> > of the cover.
> > Lee, w0vt
> >
> >
> >
> > Lee,
> >
> > I have one or two AC-4s but not sure what you mean by "double slot".
> >
> > George K4GM
> >
> > [Non-text portions of this message have been removed]
> >
> >
> >
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21057. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 04:15:14 UTC
From: rochep@...
Topic: 21054 Message: 21057

i know it it at least accurate for the 70 mA bias. But besides that, max output on 10M on the T4XC is strange. Same modern power meter.

paul

[Non-text portions of this message have been removed]

21058. Re: [DrakeRadio] T-4XB OR R-4B METER REMOVAL

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 04:39:34 UTC
From: David Nichols
Topic: 21051 Message: 21058

I have found out about the wire insulation too.
Ill never take the nuts off again, they came off all normal and everything. Then I noticed the stud was lose. Oh MY! Oh nooooo!

I got it back together, the reflectors with a fresh coat of white paint inside only. I put new light filters in and some new 755 bulbs. It looks great, the 755's are a little dimmer than the 47's but its better mood lighting. hi hi Really, not quite as harsh as before and the meter still works. I needed some luck.
Now, I bought that set of Sylvania 6JB6 off of ebay. Slightly used, well, good for 65 watts on 28.8. If I push it, I get 115 on 40 meters. My mixed pair was better, I think Ill try some from RF Parts next time. A matched pair of RCA's is about $50.
Now that I have the transmitter back in line I will look it over for an AM carrier mod. Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not squealing or anything just a nice carrier.
David - KX7C

From: "Steve Wedge w1es1982@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>; David Nichols <hamcomm7@yahoo.com>
Sent: Saturday, May 17, 2014 5:57 PM
Subject: Re: [DrakeRadio] T-4XB OR R-4B METER REMOVAL

I had somehow been fortunate enough to have removed the nuts on at least half a dozen meters before the first one bit my butt.

That wire's insulation melts if you even give it a sultry glance, so I always cut the wire right at the lug and restrip and re solder it afterwards.

Since one really only needs to do this once every 40 or 50 years, I'm not overly concerned at losing 1/4"
Of wire....

Steve Wedge, W1ES/4

Sent from my iPhone; please excuse any typographical malaprops.

> On May 17, 2014, at 8:34 PM, "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> T-4XB, 101
>
> If you ever get the urge to remove the nuts from the back of the meter on your T-4XB or the R-4B, SLAP YOURSELF SILLY! GO POUND YOUR HEAD AGAINST THE WALL OR A POST, ANYTHING to make that urge go away. DO NOT REMOVE THOSE NUTS!
>
> I admit, I have not read the manual front to back but I have not seen a warning about

removing those nuts. If you have a rig with the same meters other than the ones I mentioned. Do not remove those nuts! Let me make myself perfectly CLEAR, DONT TOUCH THOSE NUTS, unsolder the wires.
> If you remove those nuts, the meter will need to be disassembled to make repairs. If that fine little meter wire didnt break on me I may still have a working meter when Im done.
> It started innocent enough, all I wanted to do was clean it up and repaint the inside reflector. To start out you have to remove the face to get the meter out and then those meter wires are so short you cant take it anywhere. The next thing I knew, a little idea turned into a full day of cleaning what I stepped in.
>
> Thank you Garey for posting the meter pictures. I would have guessed wrong on the placement of the internal lugs. I could not believe those studs where turning on me. Turns out, they dont have a nut holding them in place and they are not fixed in any way.
>
> While Im waiting for the paint to dry in the light reflectors I painted new lines on the knobs. Might as well, I had them off. Its cool and rainy today so paint doesnt dry very fast.
>
> I put the rebuild kit together an successfully installed it in my second AC-4 yesterday. No smoke or sparks, good kit and good instructions, thanks WB8VGE. It really needed the rebuild, I found a couple of cold solder joints and bad caps.
>
> Dont I know how to have fun?
> David - KX7C
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21059. Re: [DrakeRadio] TR7 circlip was Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 06:08:31 UTC
From: geoffrey mendelson
Topic: 20922 Message: 21059

On 5/17/2014 9:12 PM, Garey Barrell k4oah@... [DrakeRadio] wrote:
>
> Garey, thanks.
>

> I couldn't find a suitable clip anywhere... I tried several
> assortments, and they all had the
> right size for the shaft, only about half as thick all over. I could
> put them on the shaft, but
> they wouldn't even stand up to knob pressure to compress the clutch
> tubing. The one Drake used
> must be a heavy industrial type, perhaps someone like Grainger would
> have them?
>
> So yes, you can probably just push it on, but .... :-)
>

So far, I found out that it really did not need to be taken apart, but only until I took it apart.

In the end it was that someone turned the dial too far to the low end and the fork was stuck against the back of the VFO case. Removing the DR-7, and lubricating the now hardened grease on the ball bearings and slowly and carefully reseating the fork got it working.

Since I was there I cleaned everything I could with 95% alcohol and removed as much goo as I could. I then used silicone oil (the only stuff I had, my sewing machine oil seems to have been thrown out, because it was almost empty) to lubricate the ball bearings and the threaded shaft. Since everything was apart anyway, I made sure any lubricant that got on the dials, old grease and dirt were removed.

I did not have a replacement circlip, so I just left it out. I also did not have the correct replacement rubber tube, I had one from a 4 line SPR-4, which is a tiny bit longer, and stuffed it all in there. Since I don't have a set screw for the knob, I used a regular bolt which hangs out the bottom. But it all works, and eventually, I'll get the correct parts.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21060. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 14:12:20 UTC
From: Garey Barrell
Topic: 21054 Message: 21060

Paul -

This is just the meter, not counting resistor values, etc. This is WHY I recommend calibrating
at 70 mA :-)

This particular meter, with accurate resistors, reading 270 mA is actually 310 mA.

Remember, <$1 each...!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> i know it it at least accurate for the 70 mA bias. But besides that, max output on 10M on the T4XC is strange. Same modern power meter.
>
> paul
>
>

[Non-text portions of this message have been removed]

21061. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 14:25:11 UTC
From: Garey Barrell
Topic: 21051 Message: 21061

Dave -

Yes, 'used' 6JB6s are never a good idea. They test 'strong' (whatever that means) on a tube tester, but remember they're being tested at DC and 60 Hz. You know efficiency falls off starting at the high frequency end ....

Check the resistor values around V11. The current through that tube is what sets the carrier
level. Also R77 to a lesser extent.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
>
> I have found out about the wire insulation too.
> Ill never take the nuts off again, they came off all normal and everything. Then I noticed the stud was lose. Oh MY! Oh nooooo!
>
> I got it back together, the reflectors with a fresh coat of white paint inside only. I put new light filters in and some new 755 bulbs. It looks great, the 755's are a little dimmer than the 47's but its better mood lighting. hi hi Really, not quite as harsh as before and the meter still works. I needed some luck.
> Now, I bought that set of Sylvania 6JB6 off of ebay. Slightly used, well, good for 65 watts on 28.8. If I push it, I get 115 on 40 meters. My mixed pair was better, I think Ill try some from RF Parts next time. A matched pair of RCA's is about $50.
> Now that I have the transmitter back in line I will look it over for an AM carrier mod. Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not squealing or anything just a nice carrier.
> David - KX7C
>
>

21062. New file uploaded to DrakeRadio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 14:29:33 UTC
From: DrakeRadio@yahoogroups.com
Topic: 3736 Message: 21062

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the DrakeRadio
group.

File : /Plate Meter Linearity.pdf
Uploaded by : k4oah <k4oah@...>
Description : T-4XC Plate Meter Linearity

You can access this file at the URL:
https://groups.yahoo.com/group/DrakeRadio/files/Plate%20Meter%20Linearity.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

k4oah <k4oah@...>

21063. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 15:06:54 UTC
From: Richard Knoppow
Topic: 21054 Message: 21063

----- Original Message -----
From: "rochep@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 17, 2014 9:15 PM
Subject: Re: [DrakeRadio] What controls TX efficiency?

>i know it it at least accurate for the 70 mA bias. But
>besides that, max output on 10M on the T4XC is strange.
>Same modern power meter.
>
> paul
>
Without getting into the accuracy of the front panel
meter I think you are reporting that the maximum power out
on ten meters is low as measured independently of the TX
meter. First of all to copy Garey, make sure your idling
plate current is really 70 ma. If the bias is set correctly
the problem can be low drive. If you have something to
measure the drive voltage at the grids compare the two
transmitters. If you are getting higher maximum output in
TUNE than in CW something is definitely wrong. In TUNE
maximum output is limited by the ALC and is never more than
about 130 Watts although the RX may not make it that high on
10 meters. My T4XB manages around 120 watts on 10.
Lots of things affect efficiency but the type of
amplifier used in the T4 series should make around 60 or 65
percent on the lower bands at least. This is typical for a
Class-AB linear. I don't think your power differences are a
matter of efficiency but something else.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21064. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 16:34:34 UTC
From: Garey Barrell
Topic: 21054 Message: 21064

Paul / Richard -

50 to 55% is typical efficiency for the T-4X(any) transmitters. This is partially due to measuring Cathode current rather than Plate current, but also to other 'compromises' in the matching networks.

Don't forget in CW you need to advance the GAIN control, sometimes considerably, over the SSB/TUNE. As Richard said, the TUNE output is limited by the ALC, and the GAIN 'flattens out'
around 11 o'clock.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Richard Knoppow' 1oldlens1@... [DrakeRadio] wrote:
> ----- Original Message -----
> From: "rochep@... [DrakeRadio]"
> <DrakeRadio@yahoogroups.com>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Saturday, May 17, 2014 9:15 PM
> Subject: Re: [DrakeRadio] What controls TX efficiency?
>
>
>> i know it it at least accurate for the 70 mA bias. But
>> besides that, max output on 10M on the T4XC is strange.
>> Same modern power meter.
>>
>> paul
>>
> Without getting into the accuracy of the front panel
> meter I think you are reporting that the maximum power out
> on ten meters is low as measured independently of the TX
> meter. First of all to copy Garey, make sure your idling
> plate current is really 70 ma. If the bias is set correctly
> the problem can be low drive. If you have something to
> measure the drive voltage at the grids compare the two
> transmitters. If you are getting higher maximum output in
> TUNE than in CW something is definitely wrong. In TUNE
> maximum output is limited by the ALC and is never more than
> about 130 Watts although the RX may not make it that high on
> 10 meters. My T4XB manages around 120 watts on 10.
> Lots of things affect efficiency but the type of

> amplifier used in the T4 series should make around 60 or 65
> percent on the lower bands at least. This is typical for a
> Class-AB linear. I don't think your power differences are a
> matter of efficiency but something else.
>

21065. Re: [DrakeRadio] What controls TX efficiency?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-18 17:08:32 UTC
From: Richard Knoppow
Topic: 21054 Message: 21065

----- Original Message -----
From: "Garey Barrell k4oah@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 18, 2014 9:34 AM
Subject: Re: [DrakeRadio] What controls TX efficiency?

> Paul / Richard -
>
> 50 to 55% is typical efficiency for the T-4X(any)
> transmitters. This is partially due to
> measuring Cathode current rather than Plate current, but
> also to other 'compromises' in the
> matching networks.
>
> Don't forget in CW you need to advance the GAIN control,
> sometimes considerably, over the
> SSB/TUNE. As Richard said, the TUNE output is limited by
> the ALC, and the GAIN 'flattens out'
> around 11 o'clock.
>
> 73, Garey - K4OAH
> Glen Allen, VA

This is a good point. The cathode current of course
includes the screen grid current as well as the plate
current. It may not be much higher but enough to make the
efficiency look lower. Maximum efficiency of these
amplifiers is fixed by theoretical considerations. The
theoretical efficiency also does not take into account
losses in the plate and coupling circuits and some tube
losses that increase with frequency.
The operating conditions in transmitters like the T-4 is
a compromise between high efficiency, low distortion,
stability of operation and ease of tuning. The efficiency
could be increased by moving the operating point towards
Class-B but Class-B amplifiers are very fussy about exact
bias and precise tuning. Not worth the trouble for maybe 10%
greater output.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21066. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 00:37:21 UTC
From: David Nichols
Topic: 21051 Message: 21066

Ok Garey, I checked the resistors.

R56--15K = 16.2
R57--15K = 15.6
R58--22M = 23.2

R77--330K = 347.3

While a couple are high I believe they are yet within tolerance. Do you think I should change any?
I will see if I can get a decent photo of board 4 and send to you. I know these parts arent on it but I am curious about some cap changes there.
David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, May 18, 2014 7:25 AM
Subject: Re: [DrakeRadio] T-4XB AM Carrier

Dave -

Yes, 'used' 6JB6s are never a good idea. They test 'strong' (whatever that means) on a tube tester, but remember they're being tested at DC and 60 Hz. You know efficiency falls off starting at the high frequency end ....

Check the resistor values around V11. The current through that tube is what sets the carrier
level. Also R77 to a lesser extent.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
>
> I have found out about the wire insulation too.
> Ill never take the nuts off again, they came off all normal and everything. Then I noticed the stud was lose. Oh MY! Oh nooooo!
>
> I got it back together, the reflectors with a fresh coat of white paint inside only. I put new light filters in and some new 755 bulbs. It looks great, the 755's are a little dimmer than the 47's but its better mood lighting. hi hi Really, not quite as harsh as before and the meter still works. I needed some luck.

> Now, I bought that set of Sylvania 6JB6 off of ebay. Slightly used, well, good for 65 watts on 28.8. If I push it, I get 115 on 40 meters. My mixed pair was better, I think Ill try some from RF Parts next time. A matched pair of RCA's is about $50.
> Now that I have the transmitter back in line I will look it over for an AM carrier mod. Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not squealing or anything just a nice carrier.
> David - KX7C
>
>

[Non-text portions of this message have been removed]

21067. Dayton and new drake radio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 01:31:21 UTC
From: prosolar@...
Topic: 21067 Message: 21067

Why won't someone stop me?

Dayton was a wash out. Rained and hailed. Yes! Hailed several times.

It followed me home. Another (!) Drake TR-4.

Serial number 28384

and with some issues. First off....

Garey.....

Why is the dial 25ish kHz off? Not sure of the exact amount but it's off by at least that amount.

when did they (drake) change the front main tuning knob? This one is brushed aluminum instead of the fluted knob.

The audio sounds distorted on strong signals. AGC needs attention.

Other than firing it up, no other tests were made.

And.......

Two Ten Tec Century 21 radios. Both broke
A drake SSR-1 seriously screwed up
Kenwood TR7600. No transmit and missing some display segments

Plus some finals NOS 6JB6s (sylvania) for $22 each. A bunch of 12BA6s and a 12AV6 for the other TR-4. I picked up a few 6HS6s @ $12 each. NOS.

Mike, WB8VGE

The Heathkitshop.com

[Non-text portions of this message have been removed]

21068. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 01:42:06 UTC
From: David Nichols
Topic: 21051 Message: 21068

Hi Garey,
I want to ask about the feed through for 250vdc. Mine is cracked, I attempted to attach a photo so you can see. I have some spares if they are all the same. It must still be working but should it be replace?
David - KX7C

From: "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, May 18, 2014 7:25 AM
Subject: Re: [DrakeRadio] T-4XB AM Carrier

Dave -

Yes, 'used' 6JB6s are never a good idea. They test 'strong' (whatever that means) on a tube tester, but remember they're being tested at DC and 60 Hz. You know efficiency falls off starting at the high frequency end ....

Check the resistor values around V11. The current through that tube is what sets the carrier
level. Also R77 to a lesser extent.

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
>
> I have found out about the wire insulation too.
> Ill never take the nuts off again, they came off all normal and everything. Then I noticed the stud was lose. Oh MY! Oh nooooo!
>
> I got it back together, the reflectors with a fresh coat of white paint inside only. I put new light filters in and some new 755 bulbs. It looks great, the 755's are a little dimmer than the 47's but its better mood lighting. hi hi Really, not quite as harsh as before and the meter still works. I needed some luck.
> Now, I bought that set of Sylvania 6JB6 off of ebay. Slightly used, well, good for 65 watts on 28.8. If I push it, I get 115 on 40 meters. My mixed pair was better, I think Ill try some from RF Parts next time. A matched pair of RCA's is about $50.
> Now that I have the transmitter back in line I will look it over for an AM carrier mod. Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not squealing or anything just a nice carrier.
> David - KX7C
>

>

[Non-text portions of this message have been removed]

21069. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 02:24:30 UTC
From: Garey Barrell
Topic: 21051 Message: 21069

David -

Yes, that really should be replaced. They are all the same, except for the Plate supply one.
Not particularly hard to replace, just need a BIG soldering iron. I put aluminum foil over the
wiring on either side of the wall. An iron big enough to solder those radiates enough heat to
curl the insulation on the hook-up wire in the area.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Hi Garey,
> I want to ask about the feed through for 250vdc. Mine is cracked, I attempted to attach a
> photo so you can see. I have some spares if they are all the same. It must still be working
> but should it be replace?
> David - KX7C
>
> ---
> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Sunday, May 18, 2014 7:25 AM
> *Subject:* Re: [DrakeRadio] T-4XB AM Carrier
>
> Dave -
>
> Yes, 'used' 6JB6s are never a good idea. They test 'strong' (whatever that means) on a tube
> tester, but remember they're being tested at DC and 60 Hz. You know efficiency falls off
> starting at the high frequency end ....
>
> Check the resistor values around V11. The current through that tube is what sets the carrier
> level. Also R77 to a lesser extent.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
> >
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> > Now that I have the transmitter back in line I will look it over for an AM carrier mod.
> Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not
> squealing or anything just a nice carrier.
> > David - KX7C
> >
> >

21070. Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 14:17:44 UTC
From: ken@...
Topic: 20992 Message: 21070

Richard, Garey, AL:

I'm going with 17JB6 and a filament transformer. These tubes are plentiful and way more affordable.

Much obliged for all the guidance and extensive general information. You have been more help than you know.

Ken DeBower
Austin, TX
AB5MX
ken@...

[Non-text portions of this message have been removed]

21071. Mic Element.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 15:10:48 UTC
From: Joe - W7RKN
Topic: 21071 Message: 21071

.....for a D104..

Which one would work best with the B's??

Joe - W7RKN

21072. Re: [DrakeRadio] Mic Element.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 15:35:45 UTC
From: Dan Galligan
Topic: 21071 Message: 21072

Joe,
In my experience, hands down, the 10-D & 10-DA mic heads, on a G Stand, are far superior to the crystal element D-104, on my B Twins. A well controlled TUG (or TUP)-8/9 stand, will work, but I prefer the non-preamplified, G-Stand.
I have never found a more compatible mic, for my T-4XB. No EV's, Turner/Telex, Heil, or other mic, has had the good reports, from my T-4XB. Although, I'd like to try a Blue Bird, or other commercial, recording, broadcast, or live performance microphone, when I can afford one.
THAT IS, of course, my experience. Others will likely have different results.

73,
Dan
W3RXO/W5
Evening Shade, OK
EM25no

There is danger from all men. The only maxim of a free government ought to be to trust no man living with power to endanger the public liberty.
John Adams

When the Okies left Oklahoma and moved to California, it raised the I.Q. of both states.
Will Rogers

Sent from my iPad.

> On May 19, 2014, at 10:10, "Joe - W7RKN w7rkn.7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com> wrote:
>
> .....for a D104..
>
> Which one would work best with the B's??
>
> Joe - W7RKN
>
>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

[Non-text portions of this message have been removed]

21073. Re: [DrakeRadio] Mic Element.....

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 16:00:42 UTC
From: geoffrey mendelson
Topic: 21071 Message: 21073

On 5/19/2014 6:35 PM, Dan Galligan w3rxo@... [DrakeRadio] wrote:
>
> Joe,
> In my experience, hands down, the 10-D & 10-DA mic heads, on a G
> Stand, are far superior to the crystal element D-104, on my B Twins. A
> well controlled TUG (or TUP)-8/9 stand, will work, but I prefer the
> non-preamplified, G-Stand.
> I have never found a more compatible mic, for my T-4XB. No EV's,
> Turner/Telex, Heil, or other mic, has had the good reports, from my
> T-4XB. Although, I'd like to try a Blue Bird, or other commercial,
> recording, broadcast, or live performance microphone, when I can
> afford one.
> THAT IS, of course, my experience. Others will likely have different
> results.
>
Over the years I have used Ten-Tec, Kenwood, Yaesu and transitorized Drake radios. I have a deep voice and the 10-DA works wonderfully for me. My wife has a high voice and she sounds much better with a D-104. I like both because I can switch the heads as needed.

As for an amplifier, it was really intended as an impedance matching device when transceivers switched from high impedance mics to low impedance mics. Unfortunately too many people got the idea that the higher the gain on the amp, the "better" it sounded.

I prefer to bypass the amp completely if not needed, and if it is, start at the lowest setting and work my way up. :-)

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21074. Re: [DrakeRadio] Re: 6JB6 Matching Questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 16:20:43 UTC
From: Bernie
Topic: 20992 Message: 21074

Just make sure they are short enough to physically fit in the cage.

Bernie in ND
WDØGMD

----- Original Message -----
From: ken@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Monday, May 19, 2014 9:17 AM
Subject: [DrakeRadio] Re: 6JB6 Matching Questions

Richard, Garey, AL:

I'm going with 17JB6 and a filament transformer. These tubes are plentiful and way more affordable.

Much obliged for all the guidance and extensive general information. You have been more help than you know.

Ken DeBower
Austin, TX
AB5MX
ken@...

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21075. Drake Forum at Hamvention 2014

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 18:06:23 UTC
From: Evan Rolek
Topic: 20992 Message: 21075

Fellow Drake Enthusiasts,

After editing, the videotaping and slides from the Drake Forum will be available online. For those of you that were able to attend, the Forum Committee would be interested in hearing your comments about how the Forum could be improved for next year. Please reply to me direct.

Enjoy those Drakes!

73,

Evan, K9SQG
For the Drake Forum Committee
K9SQG@...

[Non-text portions of this message have been removed]

21076. Re: [DrakeRadio] Drake Forum at Hamvention 2014

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 18:21:27 UTC
From: Wayne Smith
Topic: 20992 Message: 21076

Since I couldn't attend, where will the video presentation be uploaded for viewing?

Wayne Smith

Sent from my iPhone

> On May 19, 2014, at 1:06 PM, "Evan Rolek k9sqg@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Fellow Drake Enthusiasts,
>
> After editing, the videotaping and slides from the Drake Forum will be available online. For those of you that were able to attend, the Forum Committee would be interested in hearing your comments about how the Forum could be improved for next year. Please reply to me direct.
>
> Enjoy those Drakes!
>
> 73,
>
> Evan, K9SQG
> For the Drake Forum Committee
> K9SQG@...
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21077. Re: [DrakeRadio] Drake Forum at Hamvention 2014

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 18:27:10 UTC
From: Evan Rolek
Topic: 20992 Message: 21077

Wayne,

The video will most likely be posted on the VIMEO website like the previous Drake Forums.

73,

Evan

-----Original Message-----
From: Wayne Smith oilieone@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>; Evan Rolek <k9sqg@...>
Sent: Mon, May 19, 2014 2:21 pm
Subject: Re: [DrakeRadio] Drake Forum at Hamvention 2014

Since I couldn't attend, where will the video presentation be uploaded for viewing?

Wayne Smith

[Non-text portions of this message have been removed]

21078. PTO not on freq

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 22:18:27 UTC
From: prosolar@...
Topic: 21078 Message: 21078

Boys and girls,

my latest TR4 seems to be off a bit.

I'm going to spend some quality time with it on the service bench.

other than the actual PTO being off freq, what other possibilities are there?

Mike WB8VGE

[Non-text portions of this message have been removed]

21079. Re: [DrakeRadio] PTO not on freq

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 22:24:35 UTC
From: Evan Rolek
Topic: 21078 Message: 21079

Mike,

If the PTO is off on all bands, the same direction and approximately the same amount, it could be a PTO issue. If it is off in "either" direction depending on band, or not off on some bands, then it could be that one or more of the band change crystals could have drifted off. The "dial adjustment" can compensate for such issues to a certain degree. But hey, I'm not an expert on this one.

73,

Evan

-----Original Message-----
From: prosolar@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Mon, May 19, 2014 6:18 pm
Subject: [DrakeRadio] PTO not on freq

Boys and girls,

my latest TR4 seems to be off a bit.

I'm going to spend some quality time with it on the service bench.

other than the actual PTO being off freq, what other possibilities are there?

Mike WB8VGE

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21080. Re: [DrakeRadio] PTO not on freq

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 23:43:00 UTC
From: prosolar@...
Topic: 21078 Message: 21080

Evan..

It's off on all bands by the same amount. i haven't actually measured it yet

14.300 comes in at 14.276ish

Same with the calibrator, it's low in freq.

mike

[Non-text portions of this message have been removed]

21081. Re: [DrakeRadio] PTO not on freq

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-19 23:51:51 UTC
From: Richard Knoppow
Topic: 21078 Message: 21081

----- Original Message -----
From: "prosolar@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, May 19, 2014 4:43 PM
Subject: Re: [DrakeRadio] PTO not on freq

> Evan..
>
> It's off on all bands by the same amount. i haven't
> actually measured it yet
>
>
> 14.300 comes in at 14.276ish
>
>
> Same with the calibrator, it's low in freq.
>
>
> mike
>
If the calibration is off there are a couple of
possibilities: first see where the end points of the dial
are. The dial can be slipped on its hub. If the end points
are off its probably slipped. Another possibility is that
the gears have jumped a tooth or two but I think this would
cause a larger error. The dial can be re-set by reaching
around in back of the dial with your finger and moving it.
Set the pointer at the center of its range when doing this.
A slipped gear is a bit more trouble to fix but not
much. Check the dial first.

--
Richard Knoppow
Los Angeles, CA, USA
dickburk@...

21082. Re: PTO not on freq

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 00:24:44 UTC
From: prosolar@...
Topic: 21078 Message: 21082

richard,

I did a quick check the other night, seemed that the dial stopped in the proper place (the end stops) but will check again.

This PTO has metal gears, but I guess it's possible to have a slipped gear within the clock works

mike, wb8vge

[Non-text portions of this message have been removed]

21083. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 04:33:39 UTC
From: David Nichols
Topic: 21051 Message: 21083

OOOOPs!
I did it again, I was trying to setup the T-4XB with the R-4B and oboy!
I should have paid closer attention to the amp draw I suppose.
I never did hear that bird.
I saw a flash from the final area and a puff of smoke as big as a fist. Oh My!
I turned it over and what do you know? R36, R32, R33 blowed up and stinking like mad, and no Bingo.
I sure hope those Ceramic Composition Resistors work for the 15 ohm 1 watt ones.
I went ahead and ordered some more 2.7 ohm ones for R36 and a few new caps to go with R32 and R33. Might as well replace them while Im playing around in there.
Is there something else that usually goes when this happens?

Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week I could be back in business this weekend.
David - KX7C

From: Garey Barrell <k4oah@...>
To: David Nichols <hamcomm7@...>; drakeradio@yahoogroups.com
Sent: Sunday, May 18, 2014 7:24 PM
Subject: Re: [DrakeRadio] T-4XB AM Carrier

David -

Yes, that really should be replaced. They are all the same, except for the Plate supply one.
Not particularly hard to replace, just need a BIG soldering iron. I put aluminum foil over the
wiring on either side of the wall. An iron big enough to solder those radiates enough heat to
curl the insulation on the hook-up wire in the area.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Hi Garey,
> I want to ask about the feed through for 250vdc. Mine is cracked, I attempted to attach a
> photo so you can see. I have some spares if they are all the same. It must still be working
> but should it be replace?
> David - KX7C
>

> ---
> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Sunday, May 18, 2014 7:25 AM
> *Subject:* Re: [DrakeRadio] T-4XB AM Carrier
>
> Dave -
>
> Yes, 'used' 6JB6s are never a good idea. They test 'strong' (whatever that means) on a tube
> tester, but remember they're being tested at DC and 60 Hz. You know efficiency falls off
> starting at the high frequency end ....
>
> Check the resistor values around V11. The current through that tube is what sets the carrier
> level. Also R77 to a lesser extent.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@yahoo.com [DrakeRadio] wrote:
> >
> > I have found out about the wire insulation too.
> > Ill never take the nuts off again, they came off all normal and everything. Then I noticed
> the stud was lose. Oh MY! Oh nooooo!
> >
> > I got it back together, the reflectors with a fresh coat of white paint inside only. I put
> new light filters in and some new 755 bulbs. It looks great, the 755's are a little dimmer
> than the 47's but its better mood lighting. hi hi Really, not quite as harsh as before and the
> meter still works. I needed some luck.
> > Now, I bought that set of Sylvania 6JB6 off of ebay. Slightly used, well, good for 65 watts
> on 28.8. If I push it, I get 115 on 40 meters. My mixed pair was better, I think Ill try some
> from RF Parts next time. A matched pair of RCA's is about $50.
> > Now that I have the transmitter back in line I will look it over for an AM carrier mod.
> Since Im getting about 30 watts carrier at .2 on the amp meter dead key and no gain. Its not
> squealing or anything just a nice carrier.
> > David - KX7C
> >

> >

[Non-text portions of this message have been removed]

21084. Re: Drake Forum at Hamvention 2014

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 11:42:24 UTC
From: Mark Gilger
Topic: 20992 Message: 21084

In addition to the Video being available on VIMEO after editing, Ron, WB4HFN will have the slides posted on his web site at www.wb4hfn.com . The slides will be in PDF format instead of Powerpoint to reduce the presentations size.

Mark, WB0IQK

21085. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 14:01:58 UTC
From: Garey Barrell
Topic: 21051 Message: 21085

David -

Not good..... Do you have a 400 mA or a 500 mA Plate meter???

Sounds like the BIAS supply died..... Hopefully the meter is still good. Was the IDLE current correct???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> OOOOPs!
> I did it again, I was trying to setup the T-4XB with the R-4B and oboy!
> I should have paid closer attention to the amp draw I suppose.
> I never did hear that bird.
> I saw a flash from the final area and a puff of smoke as big as a fist. Oh My!
> I turned it over and what do you know? R36, R32, R33 blowed up and stinking like mad, and no Bingo.
> I sure hope those Ceramic Composition Resistors work for the 15 ohm 1 watt ones.
> I went ahead and ordered some more 2.7 ohm ones for R36 and a few new caps to go with R32 and R33. Might as well replace them while Im playing around in there.
> Is there something else that usually goes when this happens?
>
> Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week I could be back in business this weekend.
> David - KX7C
>
>

21086. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 15:37:17 UTC
From: David Nichols
Topic: 21051 Message: 21086

Boy I dont know Garey, the idle current was fine unless hooking it up to the receiver changes things. It would be a shame for the power supply to die like that after I rebuilt it but it is possible. I was adjusting the cap and listening for that bird. Trying to find the spot, I guess I missed something more important. I double checked my wire hookups so I didnt cross them. Whatever it was didnt take it long to do its work. Just a few seconds of key down and I was done. Ill have to check the meter when I get back out there. I have a realtor coming in today so I have eat and clean up my mess before I cant do anything else.

David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 20, 2014 7:01 AM
Subject: Re: [DrakeRadio] T-4XB Smoke!

David -

Not good..... Do you have a 400 mA or a 500 mA Plate meter???

Sounds like the BIAS supply died..... Hopefully the meter is still good. Was the IDLE current correct???

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> OOOOPs!
> I did it again, I was trying to setup the T-4XB with the R-4B and oboy!
> I should have paid closer attention to the amp draw I suppose.
> I never did hear that bird.
> I saw a flash from the final area and a puff of smoke as big as a fist. Oh My!
> I turned it over and what do you know? R36, R32, R33 blowed up and stinking like mad, and no Bingo.
> I sure hope those Ceramic Composition Resistors work for the 15 ohm 1 watt ones.
> I went ahead and ordered some more 2.7 ohm ones for R36 and a few new caps to go with R32 and R33. Might as well replace them while Im playing around in there.
> Is there something else that usually goes when this happens?
>
> Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week I could be back in business this weekend.
> David - KX7C
>

>

[Non-text portions of this message have been removed]

21087. Re: [DrakeRadio] T-4XB AM Carrier

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 16:48:33 UTC
From: Richard Knoppow
Topic: 21051 Message: 21087

----- Original Message -----
From: "David Nichols hamcomm7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <drakeradio@yahoogroups.com>
Sent: Monday, May 19, 2014 9:33 PM
Subject: Re: [DrakeRadio] T-4XB AM Carrier

OOOOPs!
I did it again, I was trying to setup the T-4XB with the
R-4B and oboy!
I should have paid closer attention to the amp draw I
suppose.
I never did hear that bird.
I saw a flash from the final area and a puff of smoke as big
as a fist. Oh My!
I turned it over and what do you know? R36, R32, R33 blowed
up and stinking like mad, and no Bingo.
I sure hope those Ceramic Composition Resistors work for the
15 ohm 1 watt ones.
I went ahead and ordered some more 2.7 ohm ones for R36 and
a few new caps to go with R32 and R33. Might as well replace
them while Im playing around in there.
Is there something else that usually goes when this happens?

Maybe next time Ill get to hear that bird tweet. hi hi If I
get the parts in this week I could be back in business this
weekend.
David - KX7C

What exactly were you doing when this happened? Was the
transmitter mode switch in SPOT?
Had you tuned up the transmitter?

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21088. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 17:19:58 UTC
From: Garey Barrell
Topic: 21051 Message: 21088

David -

No, connecting up the receiver shouldn't make any difference. Even if cables went into the wrong
ports it shouldn't blow up the PA.

What happened is most likely that BIAS voltage on the PA stage was 'lost', or 'shorted', causing
the PA to go from idle current to MAX which kills the Cathode resistors, RFC2, and R36, all of
which are in series to ground.

If you keyed the transmitter without tuning it up first into a dummy load, 'closing the key'
will cause it to draw max current. The TRANSCEIVE ALIGN procedure is done in SSB and SPOT, in
which case the PA is not even enabled, and no 'key' is required.??

When you first go to SPOT, you will hear a 'beat note', kind of a warbling bird sound, which is
the result of a tone modulated at what would be a sub-audible beat. When you adjust C61 you
hear the beat approach and reach ZERO. The Tweet is the 'beat frequency' and just allows it to
be audible all the way to ZERO. When you get down to one or two 'tweets', you can see the
S-Meter follow the tweet strength....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols wrote:
> Boy I dont know Garey, the idle current was fine unless hooking it up to the receiver changes
> things. It would be a shame for the power supply to die like that after I rebuilt it but it is
> possible. I was adjusting the cap and listening for that bird. Trying to find the spot, I
> guess I missed something more important. I double checked my wire hookups so I didnt cross
> them. Whatever it was didnt take it long to do its work. Just a few seconds of key down and I
> was done. Ill have to check the meter when I get back out there. I have a realtor coming in
> today so I have eat and clean up my mess before I cant do anything else.
> David - KX7C

>
>
> ---

> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Tuesday, May 20, 2014 7:01 AM
> *Subject:* Re: [DrakeRadio] T-4XB Smoke!
>
> David -
>
> Not good..... Do you have a 400 mA or a 500 mA Plate meter???
>
> Sounds like the BIAS supply died..... Hopefully the meter is still good. Was the IDLE
> current correct???
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
> > OOOOPs!
> > I did it again, I was trying to setup the T-4XB with the R-4B and oboy!
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> > I saw a flash from the final area and a puff of smoke as big as a fist. Oh My!
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and no
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> > I went ahead and ordered some more 2.7 ohm ones for R36 and a few new caps to go with
R32
> and R33. Might as well replace them while Im playing around in there.
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> >
> > Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week
I
> could be back in business this weekend.
> > David - KX7C
> >
> >
>
>
>
>

21089. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 18:56:22 UTC
From: David Nichols
Topic: 21051 Message: 21089

Garey and Richard I believe I figured out the error of my ways.
I started out attempting the transceive alingment outlined in the T-4XB manual. Not finding a signal to play with I then changed over to the instruction set by WB0IQK that I had copied from the internet.

This was my fatal setup, I did not tune up before changing methods. As you know, the manual has you on 80 meters with the preselector at 6.5. I did not change these settings when I switched over to the other method. I wasnt keyed up very long at all and it didnt take long for things to happen. Well thats the way it happened, I did it wrong.

On a better note, I just looked at the damage again. I wanted to check the inductors for continuity. I will have to dig out my meter for a measurement of value. But what I noticed is that R33 is still good, I know I thought it was toast but it did not blow up like R32 did. So I got R32 and R36 and I just got a note from Mouser that my order will ship today. New parts are on the way and I should get them by this weekend.

David - KX7C

From: "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 20, 2014 10:19 AM
Subject: Re: [DrakeRadio] T-4XB Smoke!

David -

No, connecting up the receiver shouldn't make any difference. Even if cables went into the wrong
ports it shouldn't blow up the PA.

What happened is most likely that BIAS voltage on the PA stage was 'lost', or 'shorted', causing
the PA to go from idle current to MAX which kills the Cathode resistors, RFC2, and R36, all of
which are in series to ground.

If you keyed the transmitter without tuning it up first into a dummy load, 'closing the key'
will cause it to draw max current. The TRANSCEIVE ALIGN procedure is done in SSB and SPOT, in
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be audible all the way to ZERO. When you get down to one or two 'tweets', you can see the S-Meter follow the tweet strength....

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

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> was done. Ill have to check the meter when I get back out there. I have a realtor coming in
> today so I have eat and clean up my mess before I cant do anything else.
> David - KX7C
>
>
> ---
> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Tuesday, May 20, 2014 7:01 AM
> *Subject:* Re: [DrakeRadio] T-4XB Smoke!
>
> David -
>
> Not good..... Do you have a 400 mA or a 500 mA Plate meter???
>
> Sounds like the BIAS supply died..... Hopefully the meter is still good. Was the IDLE
> current correct???
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> 73, Garey - K4OAH
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> Bingo.
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> could be back in business this weekend.
> > David - KX7C
> >
> >
>
>
>
>

[Non-text portions of this message have been removed]

21090. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 19:15:01 UTC
From: David Nichols
Topic: 21051 Message: 21090

Garey, I sent you a couple of pictures. You can zoom in pretty good, Im leaving things in until I have new parts to put in.

David - KX7C

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 20, 2014 10:19 AM
Subject: Re: [DrakeRadio] T-4XB Smoke!

David -

No, connecting up the receiver shouldn't make any difference. Even if cables went into the wrong
ports it shouldn't blow up the PA.

What happened is most likely that BIAS voltage on the PA stage was 'lost', or 'shorted', causing
the PA to go from idle current to MAX which kills the Cathode resistors, RFC2, and R36, all of
which are in series to ground.

If you keyed the transmitter without tuning it up first into a dummy load, 'closing the key'
will cause it to draw max current. The TRANSCEIVE ALIGN procedure is done in SSB and SPOT, in
which case the PA is not even enabled, and no 'key' is required.??

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hear the beat approach and reach ZERO. The Tweet is the 'beat frequency' and just allows it to
be audible all the way to ZERO. When you get down to one or two 'tweets', you can see the
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73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> things. It would be a shame for the power supply to die like that after I rebuilt it but
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> possible. I was adjusting the cap and listening for that bird. Trying to find the spot, I
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> David - KX7C
>
>
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> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> *To:* DrakeRadio@yahoogroups.com
> *Sent:* Tuesday, May 20, 2014 7:01 AM
> *Subject:* Re: [DrakeRadio] T-4XB Smoke!
>
> David -
>
> Not good..... Do you have a 400 mA or a 500 mA Plate meter???
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> > David - KX7C
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> >
>
>
>
>

[Non-text portions of this message have been removed]

21091. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 19:42:08 UTC
From: Garey Barrell
Topic: 21051 Message: 21091

David -

OK. Yep, classic case!! :-) Check RFC2 for continuity, it looks ok. I've seen the three pi's slammed together from the EMF in a short circuit. it could still have a shorted turn, but
doesn't seem likely.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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David Nichols hamcomm7@... [DrakeRadio] wrote:
>
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>
> David - KX7C
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 20, 2014 10:19 AM
> Subject: Re: [DrakeRadio] T-4XB Smoke!
>
>
>
>
> David -
>
> No, connecting up the receiver shouldn't make any difference. Even if cables went into the wrong
> ports it shouldn't blow up the PA.
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> What happened is most likely that BIAS voltage on the PA stage was 'lost', or 'shorted', causing
> the PA to go from idle current to MAX which kills the Cathode resistors, RFC2, and R36, all of
> which are in series to ground.
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> If you keyed the transmitter without tuning it up first into a dummy load, 'closing the key'
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>> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
>> *To:* DrakeRadio@yahoogroups.com
>> *Sent:* Tuesday, May 20, 2014 7:01 AM
>> *Subject:* Re: [DrakeRadio] T-4XB Smoke!
>>
>> David -
>>
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>>> Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week I
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>>> David - KX7C
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21092. Re: [DrakeRadio] T-4XB Smoke!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 19:59:58 UTC
From: Garey Barrell
Topic: 21051 Message: 21092

I see where things went wrong using Mark's procedure......

You must be in SSB. It's been a long time since I figured out what was happening, but seems like it was audio feedback from the speaker to the mic amp via ANTI-VOX that generated the tweets. Closing the 'PTT' in SSB should result in ZERO output unless you speak into the mic.
Closing the 'PTT' in SSB OR CW with the GAIN at CCW results in ZERO output even if you speak
into the mic.

The 'iceberg' in this catastrophe is that "KEY" and "PTT" are NOT the same. KEY in CW with the
GAIN advanced generates a signal and RF Output. PTT in CW or SSB activates the transmitter, but
no signal in CW and no signal in SSB unless you speak into the mic. TUNE activates PTT AND 'whistles' into the mic.

73, Garey - K4OAH
Glen Allen, VA

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> David - KX7C
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 20, 2014 10:19 AM
> Subject: Re: [DrakeRadio] T-4XB Smoke!
>
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>
>
> David -
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>> today so I have eat and clean up my mess before I cant do anything else.
>> David - KX7C
>>
>>
>> --
>> *From:* "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
>> *To:* DrakeRadio@yahoogroups.com
>> *Sent:* Tuesday, May 20, 2014 7:01 AM

>> *Subject:* Re: [DrakeRadio] T-4XB Smoke!
>>
>> David -
>>
>> Not good..... Do you have a 400 mA or a 500 mA Plate meter???
>>
>> Sounds like the BIAS supply died..... Hopefully the meter is still good. Was the IDLE
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>> 73, Garey - K4OAH
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>> David Nichols hamcomm7@... [DrakeRadio] wrote:
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>>> Maybe next time Ill get to hear that bird tweet. hi hi If I get the parts in this week
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>> could be back in business this weekend.
>>> David - KX7C
>>>
>>>

21093. SPR-4 labels

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 11:44:48 UTC
From: geoffrey mendelson
Topic: 21093 Message: 21093

I finally sat down with my Brother PT-1000 label maker and an SPR-4 to see if I could make labels that fit.

What I found is that I can make 2 line labels that fit, so you need to make another one for the third line.

You use clear tape with black print. I'll have to look and see if I can get clear tape with blue print, keeping it in the Drake color scheme. :-)

The data should be 2 lines of three characters. So 16.5/8.5/F should be done as one label with 16.5 (return) BLANK 8.5. A second label with BLANK F (return) BLANK is needed.
Something like 7.0/6/E would be done as BLANK 7.0 (return) BLANK (or maybe 2 blanks) 6.......

Settings are:

Size: small
Width: x 1/2
Style: Normal
Margin: Full
Underline: Off
A/F: Off

73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

21094. SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 15:28:13 UTC
From: geoffrey mendelson
Topic: 21094 Message: 21094

Anyone have an SPR-4 tuning chart?

One that has frequency, preselector, and band letter settings?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

21095. RE: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 16:18:14 UTC
From: Les Ellis
Topic: 21094 Message: 21095

Found this on the web:

http://www.hug-a-bug.com/SPR4_manual.pdf

Les
WB0FTL

-----Original Message-----
From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
Sent: Wednesday, May 21, 2014 10:28 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] SPR-4 tuning chart

Anyone have an SPR-4 tuning chart?

One that has frequency, preselector, and band letter settings?

TIA,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

Posted by: geoffrey mendelson <geoffreymendelson@...>

Yahoo Groups Links

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

21096. Re: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 16:42:00 UTC
From: geoffrey mendelson
Topic: 21094 Message: 21096

On 5/21/2014 7:18 PM, 'Les Ellis' wb0ftl@... [DrakeRadio] wrote:
>
> Found this on the web:
>
> http://www.hug-a-bug.com/SPR4_manual.pdf
>

Thanks, it's a different scan of the same manual everyone has. I think there was only one published, though different versions online have different notes.

It has a chart of what crystal you need for what frequency, but no chart of how to tune the radio. I assume when you bought a crystal from Drake, they included the decal you needed.

My problem is that I have an SPR-4 with lots of crystals added long after the decals were either removed, or left on the radios the crystals came from. Many have faded, and some are penciled in (and wrong).

There probably are enough remaining SPR-4's to crowdsource a decent table.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21097. Re: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 17:36:08 UTC
From: fred
Topic: 21094 Message: 21097

On 5/21/2014 10:28 AM, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
> Anyone have an SPR-4 tuning chart?
>
> One that has frequency, preselector, and band letter settings?
>
> TIA,
>
> Geoff.
>
>
Ihave a spr-4 that is full up on xtals i can send you the settings for
the ones i have in my receiver if that will help.
73 fred kc4ena

[Non-text portions of this message have been removed]

21098. Re: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 18:32:14 UTC
From: fred
Topic: 21094 Message: 21098

On 5/21/2014 11:42 AM, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
> On 5/21/2014 7:18 PM, 'Les Ellis' wb0ftl@... [DrakeRadio] wrote:
>
>> Found this on the web:
>>
>> http://www.hug-a-bug.com/SPR4_manual.pdf
>>
>>
> Thanks, it's a different scan of the same manual everyone has. I think
> there was only one published, though different versions online have
> different notes.
>
> It has a chart of what crystal you need for what frequency, but no chart
> of how to tune the radio. I assume when you bought a crystal from Drake,
> they included the decal you needed.
>
> My problem is that I have an SPR-4 with lots of crystals added long
> after the decals were either removed, or left on the radios the crystals
> came from. Many have faded, and some are penciled in (and wrong).
>
> There probably are enough remaining SPR-4's to crowdsource a decent table.
>
> Thanks and 73,
>
> Geoff.
>
>
update i found i have a complete set of decals so i can send a list
of all settings if you like.
fred kc4ena

[Non-text portions of this message have been removed]

21099. Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-21 22:10:38 UTC
From: rochep@...
Topic: 20922 Message: 21099

I just got the cerclip pliers today from the eBay source. I paid $5.00 delivered to my door, they work GREAT. Was able to move the clip back so now my R4A flat skirt sits 1 mM or so from the front panel, looks great!! It was certainly worth the price of a cup of Starbucks coffee!!

paul

[Non-text portions of this message have been removed]

21100. Re: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 00:10:41 UTC
From: geoffrey mendelson
Topic: 21094 Message: 21100

On 5/21/2014 9:32 PM, fred kc4ena@... [DrakeRadio] wrote:
>
>
> >
> update i found i have a complete set of decals so i can send a list
> of all settings if you like.
> fred kc4ena
>
yes, please.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21101. Re: [DrakeRadio] Re: Restored R-4A Photos

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 00:27:28 UTC
From: Garey Barrell
Topic: 20922 Message: 21101

Paul -

Nothing like having the right tool for a job!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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rochep@... [DrakeRadio] wrote:
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> paul
>
>

21102. Re: [DrakeRadio] SPR-4 tuning chart

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 01:19:56 UTC
From: fred
Topic: 21094 Message: 21102

On 5/21/2014 7:10 PM, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
> On 5/21/2014 9:32 PM, fred kc4ena@... [DrakeRadio] wrote:
>
>>
>>
>>>
>> update i found i have a complete set of decals so i can send a list
>> of all settings if you like.
>> fred kc4ena
>>
>>
> yes, please.
>
> Thanks and 73,
>
> Geoff.
>
>
Geoff send me your mailing address and i will send you a photocopy of the
complete strip
fred kc4ena@...

[Non-text portions of this message have been removed]

21103. Loose power cable fried my finals?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 02:41:46 UTC
From: rochep@...
Topic: 21103 Message: 21103

Last night I noticed some "sparking/buzzing" sounds from the back of my T4XB as I was transmitting. Took a peek, it sounded like it was coming from the BACK of the rig; then I noticed my power connector from the AC4 looked like it was coming out, I plugged it back in and the noise went away. (I was messing around back there with KEY and RX ANT connection). I don't remember if I had another transmission after that or not.

Today I went to transmit.. NOTHING. No bias current. Then saw the fuse in my AC4 was blown. Replaced it, rig started up, but STILL no bias current. Hmmm. So replaced the PA tubes with "spares" (I THOUGHT they were bad) but now everything is fine, I transmit fine, bias is fine, >100 watts out on all bands.

Could a loose connection from AC4 to T4XB cause an intermittent that could kill final PA tubes? Any way to make sure the connector is in there TIGHT; mine is pretty loose.

The "good" news; after a new 6EV7 these "bad" Sylvania PA tubes seem great, neutralized nicely and no evidence of oscillation.

paul

[Non-text portions of this message have been removed]

21104. my email

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 03:45:38 UTC
From: geoffrey mendelson
Topic: 21104 Message: 21104

Fred, this one will do, geoffreymendelson@...

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

21105. Tube Tester For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 11:52:35 UTC
From: Steve Wedge
Topic: 21105 Message: 21105

Jackson Model 115 - appears to be from the 50's, cathode emission.

It powers up but doesn't seem to indicate when a tube in tested (needle goes all the way to the left). Should be an easy repair or could be cockpit error.

These go for $35-55 plus shipping on Fleabay, send me $20 plus shipping and it's yours. I have a TV-10 and I have no time to mess with it.

73,

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

[Non-text portions of this message have been removed]

21106. Re: [DrakeRadio] Loose power cable fried my finals?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 12:36:27 UTC
From: Steve Wedge
Topic: 21103 Message: 21106

If the bias voltage was interrupted, it's possible.

Steve Wedge, W1ES/4

Time flies like an arrow; fruit flies like a banana.

All my computers have my signature with various pearls of wisdom appended thereto.

From: rochep@... [DrakeRadio]
Sent: Wednesday, May 21, 2014 10:41 PM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Loose power cable fried my finals?

Last night I noticed some "sparking/buzzing" sounds from the back of my T4XB as I was transmitting. Took a peek, it sounded like it was coming from the BACK of the rig; then I noticed my power connector from the AC4 looked like it was coming out, I plugged it back in and the noise went away. (I was messing around back there with KEY and RX ANT connection). I don't remember if I had another transmission after that or not.

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Could a loose connection from AC4 to T4XB cause an intermittent that could kill final PA tubes? Any way to make sure the connector is in there TIGHT; mine is pretty loose.

The "good" news; after a new 6EV7 these "bad" Sylvania PA tubes seem great, neutralized nicely and no evidence of oscillation.

paul

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21107. Drake Forum at 2014 Hamvention

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 12:53:47 UTC
From: Evan Rolek
Topic: 21107 Message: 21107

Fellow Drake Enthusiasts,

For those that were unable to attend the 2014 Hamvention, the video of the Drake Forum can be viewed at the links below.

We'd like your comments about how the Drake Forum can be improved so please feel free to email me directly: K9SQG@....

73,

Evan, K9SQG
For the Drake Forum Committee

https://vimeo.com/96032266

https://www.youtube.com/watch?v=ZsdddOx-6rg

[Non-text portions of this message have been removed]

21108. Re: [DrakeRadio] Loose power cable fried my finals?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 14:56:03 UTC
From: Paul Kraemer
Topic: 21103 Message: 21108

Paul
In a word---yes
If the bias is lost the PA tubes are gone
Happened to me and that is why I now pay a lot of attention to the condition of the AC-4 power connector and mating pins on the transmitter or transceiver. I clean them thoroughly with contact cleaner and if the connector doesn't feel right, replace it.
Also check the mounting screws for the chassis connector on the transmitter or transceiver by loosening and re tightening the hardware
Drake appears to have connected the ground pin on the plug to the shell of the connector for ground. Should be a wire from the connector soldered to ground to eliminate the mechanical reliability issue. Apologies to all if there is such a connection. I didn't find one in my TR-4, only mechanical.
Paul K0UYA

From: "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 21, 2014 9:41 PM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] Loose power cable fried my finals?

> Last night I noticed some "sparking/buzzing" sounds from the back of my
> T4XB as I was transmitting. Took a peek, it sounded like it was coming
> from the BACK of the rig; then I noticed my power connector from the AC4
> looked like it was coming out, I plugged it back in and the noise went
> away. (I was messing around back there with KEY and RX ANT connection). I
> don't remember if I had another transmission after that or not.
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> my AC4 was blown. Replaced it, rig started up, but STILL no bias current.
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> now everything is fine, I transmit fine, bias is fine, >100 watts out on
> all bands.
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> Could a loose connection from AC4 to T4XB cause an intermittent that could
> kill final PA tubes? Any way to make sure the connector is in there TIGHT;
> mine is pretty loose.
>
> The "good" news; after a new 6EV7 these "bad" Sylvania PA tubes seem
> great, neutralized nicely and no evidence of oscillation.
>
> paul
>
> [Non-text portions of this message have been removed]
>

>
>
> ------------------------------------
> Posted by: rochep@...
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> Yahoo Groups Links
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21109. Re: [DrakeRadio] Loose power cable fried my finals?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 17:45:09 UTC
From: Garey Barrell
Topic: 21103 Message: 21109

Paul -

I'm trying to think of a scenario where this could happen. Yes, the C-J connectors can get 'loose' after _MANY_ matings. I always clean them with DeoxIT and even a pencil eraser when necessary, but only seen a few that would actually come loose, 'on their own'. One problem is
if the PS cable is hanging down behind a table, etc., and put a considerable load on them. So
it's worth taking care that any 'mechanical' load is corrected, on ALL the cables.

Most likely cause of PA tube failure is if the BIAS connection is interrupted as this not only
removes the bias voltage from the PA, it also keys the transmitter! This condition can easily
draw enough current to blow the AC-4 fuse.. Was the fuse correct?? 5 or 6-1/4A Slo-Blo??

The BIAS supply is PIn 9, which is NOT a corner pin, and is on the bottom row, and since it's
the same length as all the other pins it seems strange that it would be the pin to 'break contact' first. I'm thinking it's more likely that the +650V pin, which is on the top, right
'corner' came loose and was causing the 'buzzing' sound. Without the +650, transmitting causes
the PA Screens to 'become' the Plate, and with little to no dissipation capability, probably
vaporizing them, leaving tubes with NO Screen. Since a Pentode without Screen voltage will NOT
conduct, no idle current (or any other current!,) is possible.

So... Lesson is, make sure the connectors are firmly engaged, with the cables arranged so that
they are not 'hanging' from the connector. Also power off before pulling a radio out from under
a shelf, etc., that could put a strain on those connectors.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

rochep@... [DrakeRadio] wrote:
> Last night I noticed some "sparking/buzzing" sounds from the back of my T4XB as I was transmitting. Took a peek, it sounded like it was coming from the BACK of the rig; then I noticed my power connector from the AC4 looked like it was coming out, I plugged it back in and the noise went away. (I was messing around back there with KEY and RX ANT connection).

I don't remember if I had another transmission after that or not.
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>
> paul
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: rochep@...
> ------------------------------------
>
> Yahoo Groups Links
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>

21110. Re: [DrakeRadio] Loose power cable fried my finals?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 18:08:33 UTC
From: rochep@...
Topic: 21103 Message: 21110

Yes, I have been fiddling so much with the radio, taking it from my shelf to my bench (for neutralizing finals, testing different tubes, alignment, etc...) that I think the power cord was not seated in there right, sort of "dangling". I have learned my lesson (the expensive way). My 6GJ5 "replacements" are on the way.

paul

[Non-text portions of this message have been removed]

21111. Hi all

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 21:44:52 UTC
From: briandw5470@...
Topic: 21111 Message: 21111

Checking in for the first time! I bought a Drake L-4b at Hamvention that is a bi of a basket case and found this place looking for information to make needed restorations.

73's
Brian
KF4HFV

[Non-text portions of this message have been removed]

21112. B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 23:35:50 UTC
From: gpastover@...
Topic: 21112 Message: 21112

Greetings all, I am looking to purchase a pristine b line. One that is in perfect working order with all the cables. Also an ac4 with the upgrade , and an ms4 speaker. I will consider a b line that has an issue or two as long as it is pristine cosmetically. If anyone knows of one please let me know. Thanks. W6dst. "73".

[Non-text portions of this message have been removed]

21113. Re: [DrakeRadio] Hi all

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 23:43:49 UTC
From: Evan Rolek
Topic: 21111 Message: 21113

Brian,

Welcome to the world of L4B amplifiers. As to restorations, it's not possible to address restorations unless it is known what needs to be restored. As to upgrades, two of the ones I usually do are the power supply (Heathkit Shop or Harbach Electronics retrofit boards), installing an RCA female connector for the PTT line, and a "soft key" for the PTT (e.g. Ham Gadgets UKA-2) so that it can be used with newer solid state rigs as well as vintage rigs.

In terms of other things to look for/at, please see a posting from earlier today regarding the VIMEO and YouTube videos from the Drake Forum from Hamvention 2014 last weekend. Things to check before you power up are addressed.

I'm sure the Drake experts will be able to guide you through whatever assistance you might need.

73,

Evan, K9SQG

-----Original Message-----
From: briandw5470@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 22, 2014 6:32 pm
Subject: [DrakeRadio] Hi all

Checking in for the first time! I bought a Drake L-4b at Hamvention that is a bi of a basket case and found this place looking for information to make needed restorations.

73's
Brian
KF4HFV

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21114. Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 00:55:14 UTC
From: aei_01033@...
Topic: 20448 Message: 21114

Garey

Found the issue.

The R70 (zero pot) was open. This caused all the metering current in the bridge to flow through the s-meter.

As it turned out, the previous owner had replaced the s-meter with a 20 ohm unit (heavy shunt type) thinking the full scale meter issue would be resolved this way. Some minor scratching on the case near the zero pot adjustment is evidence he had an issue with the zero pot, as was some sloppy resolder work.

Anyway.....I replaced with a new 200 ohm pot and reinstalled the standard issue 230 ohm s-meter.

Now the meter zeros nicely and the s-meter deflects as it should.

p.s. this is the second time I've had a bad R70 in a TR4-C.....tough to find one that fits ! Usually the thread is 3/8" dia. on ones you find - the TR4-C needs a 1/4" thread mount.

Thanks for helping me resolved this.

Bill
N1CQ

[Non-text portions of this message have been removed]

21115. Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 01:40:20 UTC
From: David Stover
Topic: 21112 Message: 21115

Greetings bill "wb9cac". I am very interested . If you could send me a few pics that would be great. How would you rate the b line. And do you know of any issues. And when you can, let me know the price.
And thanks for the quick reply. "The drake group really works". Dave w6dst. "73".

[Non-text portions of this message have been removed]

21116. Drake b line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-22 23:19:03 UTC
From: gpastover@...
Topic: 21116 Message: 21116

Greetings all, I am looking to purchase a pristine b line, one that is in perfect working order with all the cables, and also an ac4 with the upgrade, and an ms4 speaker. If anyone knows of one please let me know. Thanks, Dave. W6dst. "73".

Sent from my iPad

21117. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:02:11 UTC
From: Garey Barrell
Topic: 20448 Message: 21117

Bill -

Cool! Always nice to get one going again......

Always tough to figure out what's happening when you have 'two' failures, bad meter & open pot!! Good catch!

Yes, R70 often fails as a result of C135 shorting, causing the 6AQ5 to draw way too much current. If the guy is lucky, he figures out that C135 is shorted, replaces the cap before the
Output transformer opens, and puts in a new tube. Got audio, now the S-Meter doesn't work!! Why would the AF OUTPUT tube affect the S-Meter?? :-) Time to sell the radio.............

Glad you got it going.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

aei_01033@... [DrakeRadio] wrote:
> Garey
>
>
> Found the issue.
>
> The R70 (zero pot) was open. This caused all the metering current in the bridge to flow through the s-meter.
>
> As it turned out, the previous owner had replaced the s-meter with a 20 ohm unit (heavy shunt type) thinking the full scale meter issue would be resolved this way. Some minor scratching on the case near the zero pot adjustment is evidence he had an issue with the zero pot, as was some sloppy resolder work.
>
> Anyway.............I replaced with a new 200 ohm pot and reinstalled the standard issue 230 ohm s-meter.
>
> Now the meter zeros nicely and the s-meter deflects as it should.
>
> p.s. this is the second time I've had a bad R70 in a TR4-C...........tough to find one that fits ! Usually the thread is 3/8" dia. on ones you find - the TR4-C needs a 1/4" thread mount.
>
>
> Thanks for helping me resolved this.

>
> Bill
> N1CQ
>
>

21118. RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:16:41 UTC
From: David Nichols
Topic: 21118 Message: 21118

Hello Everyone,
Well I have a question on the VFO operation.
I just got this in today and have cleaned it and painted the scratched up case.
Its looking a lot better but when I turn the big knob it slips. hi hi
Im just spinning my knob and the dials arent turning very much.

It doesnt happen all the time but to much for me to be happy with it.
The gears have popped out at least 4 times on me and I dont see any instructions in the manual about lining the dails up properly. I figured the spring loaded release mechanisms out and lined up my zero's.
But it still slips, so now Im thinking the rubber clutch is working to hard. It seemed pliable but I didnt remove it yet. It might have some grease or something on it so Ill do that now.
Any suggestions?
David - KX7C

[Non-text portions of this message have been removed]

21119. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:29:55 UTC
From: Garey Barrell
Topic: 21118 Message: 21119

David -

Does the frequency change normally as you tune?

If it IS, the 'clutch' is slipping. You need to press in on the knob as you tighten the setscrew.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Hello Everyone,
> Well I have a question on the VFO operation.
> I just got this in today and have cleaned it and painted the scratched up case.
> Its looking a lot better but when I turn the big knob it slips. hi hi
> Im just spinning my knob and the dials arent turning very much.
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> But it still slips, so now Im thinking the rubber clutch is working to hard. It seemed pliable but I didnt remove it yet. It might have some grease or something on it so Ill do that now.
> Any suggestions?
> David - KX7C
>

21120. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:26:30 UTC
From: David Nichols
Topic: 21118 Message: 21120

Well I pulled the rubber clutch. It isnt as pliable as it seemed, I can make a mark in it with my fingernail but I have tough fingernails. The thing slips more now than it did before I cleaned it. Pushing the VFO knob into it doesnt seem to help either.
Looks like its time for a new clutch.
David - KX7C

From: "David Nichols hamcomm7@yahoo.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 22, 2014 7:16 PM
Subject: [DrakeRadio] RV-4C

Hello Everyone,
Well I have a question on the VFO operation.
I just got this in today and have cleaned it and painted the scratched up case.
Its looking a lot better but when I turn the big knob it slips. hi hi
Im just spinning my knob and the dials arent turning very much.

It doesnt happen all the time but to much for me to be happy with it.
The gears have popped out at least 4 times on me and I dont see any instructions in the manual about lining the dails up properly. I figured the spring loaded release mechanisms out and lined up my zero's.
But it still slips, so now Im thinking the rubber clutch is working to hard. It seemed pliable but I didnt remove it yet. It might have some grease or something on it so Ill do that now.
Any suggestions?
David - KX7C

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21121. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:39:14 UTC
From: David Nichols
Topic: 21118 Message: 21121

I dont know Garey, Im still working on it. Im not close to hooking it up to the TR-4CW yet. I had a couple of rust spots on the deck to deal with and I have the face back on it now. I think I will see if I can rough up the ends of the clutch a little and see if a piece of paper inside it will make it work till I get the new clutch in.

Im working on 4 Drake pieces now.

Question on the TR4CW, do you think I should realign it since I installed the new 40 meter xtal?
The old one was off about 165 kc's.
David - KX7C

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, May 22, 2014 7:29 PM
Subject: Re: [DrakeRadio] RV-4C

David -

Does the frequency change normally as you tune?

If it IS, the 'clutch' is slipping. You need to press in on the knob as you tighten the setscrew.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Hello Everyone,
> Well I have a question on the VFO operation.
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> Its looking a lot better but when I turn the big knob it slips. hi hi
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> Any suggestions?

> David - KX7C
>

[Non-text portions of this message have been removed]

21122. Re: Hi all

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 02:51:42 UTC
From: briandw5470@...
Topic: 21111 Message: 21122

Thanks for the great reply! The L-4B came with all the Harbach mods still in their plastic bags. The problems I am having are that someone removed the two large resistors that mount on each side of the power supply transformer and had placed a large string of diodes in line with the high voltage line to the board. I took all that out and installed the Harbach board I have to get the resistors and finish that up.

I then took a look at the RF deck and someone had done some home brew soft start mod and also installed a modern antenna relay. They had cut and moved a lot of wiring and removed the safety interlock so I have spent the last couple days trying to sort that all out and get it back as close to stock as possible before I install the Harbach soft start and soft key. Luckily my brother has two working L-4B's and I have one here to compare which has been a big help so far. I am having trouble finding an original style relay and the interlock system. I have been searching with no luck. Harbach did carry the relay but he is out of stock and told me he didn't know when he would get more in because he has to source a new supplier. So really I have kind off hit a brick wall until I find the parts I suppose.

[Non-text portions of this message have been removed]

21123. more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 05:19:51 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21123

I have an RV-75 that I got with a TR-5. If I want to put it on a TR7, the instructions say I need a cable which goes on the accessory plug (not the one that powers the RV7) to adjust the RIT. Is this needed for general operation? Can I use the RV-75 without it?

The other question is more philosophical. I have an SPR-4 which receives well on LF and MW broadcasts. I plan to hook it up to a PA0RDT type mini whip amplified antenna, so that it can receive something here besides noise. I understand the TR7 can be modified to receive on LF and MW. The easiest way was to use an AUX-7, which I had 20 years ago, but that went with the TR-7 I traded when I left the US. Is it possible to still get AUX-7s? I seen have articles about a home made replacement for it, is it possible to get them assembled, or at least a kit of ALL parts?

The PA0RDT antenna has been an experience in how many different vendors one can buy from on eBay, (and off it) at the same time. Looking back on it, I should have bought a kit, or an assembled version, or even the much more expensive, and more robust MFJ equivalent.

I doubt that any other mod could be done by me. I am still searching for someone in Israel who works on TR-7s, but I am afraid that by default, I am the one. :-(

Is it worth it? Besides the nice digital display, is the TR7 a better receiver than the SPR-4? My TR7 has a 500 and 300 Hz CW filter, but the 500 is not working and if it turns out to be defective it will be replaced with a "poor man's AM filter". Right now I listen to AM broadcasts on SW bands using the passband tuning trick.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

21124. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 05:35:06 UTC
From: David Nichols
Topic: 21118 Message: 21124

Garey to answer you question, no it does not change the frequency. Infact, it seems to be dead.
The red lights work and indicate that circuit is up. My new dial light is not working. There is no output when I use the VFO to xmit and the receive noise is not right. So I will say it does not work with my TR-4CW.
I should have bench tested this sucker before I put it all together. Now I have to take it apart and bench test it anyway. The sad thing is, the guy I got it from swore up and down it all works. That he was using it and it worked fine. No, I didnt get it on ebay.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 22, 2014 7:39 PM
Subject: Re: [DrakeRadio] RV-4C

I dont know Garey, Im still working on it. Im not close to hooking it up to the TR-4CW yet. I had a couple of rust spots on the deck to deal with and I have the face back on it now. I think I will see if I can rough up the ends of the clutch a little and see if a piece of paper inside it will make it work till I get the new clutch in.

Im working on 4 Drake pieces now.

Question on the TR4CW, do you think I should realign it since I installed the new 40 meter xtal?
The old one was off about 165 kc's.
David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, May 22, 2014 7:29 PM
Subject: Re: [DrakeRadio] RV-4C

David -

Does the frequency change normally as you tune?

If it IS, the 'clutch' is slipping. You need to press in on the knob as you tighten the setscrew.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Hello Everyone,
> Well I have a question on the VFO operation.
> I just got this in today and have cleaned it and painted the scratched up case.
> Its looking a lot better but when I turn the big knob it slips. hi hi
> Im just spinning my knob and the dials arent turning very much.
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> It doesnt happen all the time but to much for me to be happy with it.
> The gears have popped out at least 4 times on me and I dont see any instructions in the manual about lining the dails up properly. I figured the spring loaded release mechanisms out and lined up my zero's.
> But it still slips, so now Im thinking the rubber clutch is working to hard. It seemed pliable but I didnt remove it yet. It might have some grease or something on it so Ill do that now.
> Any suggestions?
> David - KX7C
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21125. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 06:30:20 UTC
From: David Nichols
Topic: 21118 Message: 21125

Good Morning Garey,
Well its 2320L for me and Im sure you are snoring by now. hi hi

I got it to work, I was not getting my 12 volts to the tube and the dial light.

I cleaned the power plug prongs again and worked the plug into the socket a few times.

Its all working now and changing frequency as I think it should. I had to adjust the dial a little, about 10 kc's and it seems good now. I am able to receive and transmit with the VFO and that was the desire. hi hi
I pulled the VFO knob off of the TR-4 since I had it on the bench and boy what a difference between the rubber. The TR-4 has a soft black one that is springy. The RV-4C has a hard grey one, I dare say it is original. But it is very hard compared to the other one.
Im done for the night.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 22, 2014 10:35 PM
Subject: Re: [DrakeRadio] RV-4C

Garey to answer you question, no it does not change the frequency. Infact, it seems to be dead.
The red lights work and indicate that circuit is up. My new dial light is not working. There is no output when I use the VFO to xmit and the receive noise is not right. So I will say it does not work with my TR-4CW.
I should have bench tested this sucker before I put it all together. Now I have to take it apart and bench test it anyway. The sad thing is, the guy I got it from swore up and down it all works. That he was using it and it worked fine. No, I didnt get it on ebay.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 22, 2014 7:39 PM
Subject: Re: [DrakeRadio] RV-4C

I dont know Garey, Im still working on it. Im not close to hooking it up to the TR-4CW yet. I had a couple of rust spots on the deck to deal with and I have the face back on it now. I think I will see if I can rough up the ends of the clutch a little and see if a piece of paper inside it will make it work till I get the new clutch in.

Im working on 4 Drake pieces now.

Question on the TR4CW, do you think I should realign it since I installed the new 40 meter xtal?

The old one was off about 165 kc's.
David - KX7C

From: "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, May 22, 2014 7:29 PM
Subject: Re: [DrakeRadio] RV-4C

David -

Does the frequency change normally as you tune?

If it IS, the 'clutch' is slipping. You need to press in on the knob as you tighten the setscrew.

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
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> David - KX7C
>

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21126. AC-4 Wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 06:39:16 UTC
From: Joe - W7RKN
Topic: 21126 Message: 21126

OK boys and girls.....

Need to add to my Drake collection....I am in need of another AC-4 power supply, with or without an MS-4 speaker housing.

Anyone have one sitting around, collecting dust?

I would be interested.

Thanks!

Joe - W7RKN

21127. Station Monitor Scope

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 09:59:49 UTC
From: mikek4qu@...
Topic: 21127 Message: 21127

What's the best Station Monitor Scope to use with a TR-4C? I would like to try to convert one to Drake styling.
Thanks for any info. 73, Mike K4QU

[Non-text portions of this message have been removed]

21128. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 11:43:44 UTC
From: David Stinson
Topic: 20472 Message: 21128

----- Original Message -----
From: "geoffrey mendelson geoffreymendelson@...
[DrakeRadio]"
> ......I have an SPR-4 which receives
> well on LF and MW broadcasts. I plan to hook it up to a PA0RDT
> type mini
> whip amplified antenna, so that it can receive something here
> besides
> noise.

I know many people love these little E-Field Probe whips.
I spent many years and accomplished a few "first" in Lowfering.
The E-Field Probe would be my very last choice, especially in
a high-noise environment. If one is serious about Longwave,
a tunable loop- even the small desktop ferrite-rod type-
is far and away a better choice. Heard many of the 600 Meter
stations reliably with one not much bigger than my hand.
Try one and you'll use the E-Field Probe for a back scratcher.
If you have a quite location and lots of open space,
a very long wire laying on the ground (beverage)
will make you want to throw rocks at any smaller antenna.

Regards,
David S.

21129. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 12:06:34 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21129

On 5/23/2014 2:43 PM, 'David Stinson' arc5@... [DrakeRadio] wrote:
>
>
> I know many people love these little E-Field Probe whips.
> I spent many years and accomplished a few "first" in Lowfering.
> The E-Field Probe would be my very last choice, especially in
> a high-noise environment. If one is serious about Longwave,
> a tunable loop- even the small desktop ferrite-rod type-
> is far and away a better choice. Heard many of the 600 Meter
> stations reliably with one not much bigger than my hand.
> Try one and you'll use the E-Field Probe for a back scratcher.
> If you have a quite location and lots of open space,
> a very long wire laying on the ground (beverage)
> will make you want to throw rocks at any smaller antenna.
>

Thanks,

My problem is where I am. I am in an apartment building, on the side of a mountain. The mountain blocks all signals to the south and many to the west. There is a lot of noise from everything electrical and electronic here. All I can do is put something that no one recognizes as an antenna.

Things are so bad that a GE Superradio 3 can only receive one or two stations inside my apartment. Then only if I sit at the north window.

Many of my neighbors would force me to take down anything they recognize because if it is an antenna, it must be putting out dangerous radiation.

The PA0RDT design, over the MFJ for example, only looks like an antenna if you build it in the pipe type case. If you put it in a lamp or a flowerpot, no one will notice it. :-)

So I am stuck with what I have.

I do have a lot of varied length ferrite rods, I bought them a few years ago to experiment. They were made in the Soviet Union, so they have been around for a long time. I got them really cheap, someone I noticed sold them on eBay with crystal radio instructions for $10 each. Ouch. If you have any designs please let me know, I'd like to try them.

I did find a way of cutting the cost of the electronic components to less than half, by substituting a 2n3866 instead of a 2n5109 transistor.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21130. Re: [DrakeRadio] RV-4C

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 13:15:30 UTC
From: Garey Barrell
Topic: 21118 Message: 21130

David -

OK. I guess it depends on how you did the alignment before. If you set it to the correct 'frequency' to peak the alignment, or if you just set the 'dial' to the marked frequency. If
the latter, it wouldn't hurt to go through and tweak up the 40M band on the 'correct' frequencies. Actually it won't hurt either way!

But you don't need to do anything other than related to 40M, no BAL MOD, etc. Just Mixer and RF
adjustments.

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
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>
> Im working on 4 Drake pieces now.
>
> Question on the TR4CW, do you think I should realign it since I installed the new 40 meter xtal?
> The old one was off about 165 kc's.
> David - KX7C
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, May 22, 2014 7:29 PM
> Subject: Re: [DrakeRadio] RV-4C
>
>
>
>
> David -
>

> Does the frequency change normally as you tune?
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> If it IS, the 'clutch' is slipping. You need to press in on the knob as you tighten the setscrew.
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> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
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>> Any suggestions?
>> David - KX7C
>>

21131. Re: LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 14:06:05 UTC
From: David Stinson
Topic: 20472 Message: 21131

H-Field antennas like the Ferrite loops seem to me
to be much less bothered by local terrain.
And the ability to "steer" them to cancel noise will
pull many signals out that are completely buried
in the noise from an E-Field Probe.

About a third of the way down this page:

http://theradioboard.com/rb/viewtopic.php?f=10&t=5260&start=15

is a diagram for the Palomar LA-1 ferrite loop antenna.
It's a simple device but it works very well.
I don't recommend buying one- they command a hefty price.
You should be able to build one just as good in an evening.
Wind a center-tapped coil on one of your ferrites.
You'll note a big increase in signals when it's tuned to freq.
You can cut thin wood or Plexiglass and copy the LA-1's
friction-fit coil mounting scheme so you can steer and tilt it,
or devise your own.
Google "Palomar LA-1 antenna" for more info.

73 Dave S.

21132. Re: [DrakeRadio] Station Monitor Scope

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 14:15:48 UTC
From: Garey Barrell
Topic: 21127 Message: 21132

Mike -

Probably the Heathkit HO-10. The Collins guys like the SB-610 because it has the rounded cabinet corners like the S-line.

The HO-10 is older, and many have had transformer failure, but if you can find a good one, AND
replace the HV PS filter caps that are the usual reason for transformer failure, and a few resistors that have drifted it makes a nice scope. I've seen at least one 'Drake' HO-10, but
can't find the photo. I've also seen a SB-630 put into an MS-4 cabinet, it might fit into a TC-2/6 cabinet, but doubt you could find one.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

mikek4qu@... [DrakeRadio] wrote:
> What's the best Station Monitor Scope to use with a TR-4C? I would like to try to convert one to Drake styling.
> Thanks for any info. 73, Mike K4QU
>
>

21133. Re: [DrakeRadio] Re: Hi all

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 14:47:45 UTC
From: Evan Rolek
Topic: 21111 Message: 21133

Brian,

When you replace the resistors in the power supply, you might consider replacing the 5 K 7 watt ALC resistor on the underside with a 20 watt equivalent. When I rebuild the supplies, I use either a 20 watt variant or two 10 K 10 watt resistors in parallel. Otherwise, failure of the original resistor resistor results in failure of the ALC pot on the RF deck; while I have spares, they are difficult to source.

Not sure what kind of soft start was installed but there are two considerations here--soft start for the filament transformer and tube filaments, and soft start for the capacitors in the HV supply that are fed from the HV transformer. For me, soft-start for the filaments is the more important and thus I have installed thermistors in the primary circuit. As to the HV, I've never had a HV failure due to an inrush surge over decades of operating Drake linears; too, a Drake engineer told me that the DC resistance of the HV transformer secondary limits the surge current due to the capacitors. As a side note, I use an external switch (Ameritron ICP-240 which is NOT a soft-start circuit in spite of what the advertising states) to ease the burden on the L4B power switch although rebuilding the switch can be done quite easily.

The interlock sometimes becomes available on Ebay and, since it is not an overly complex device, one can be fabricated in a home shop. The changeover relay can sometimes be found (used) on the Ebay auction site or elsewhere. Putting out a request for such a part on the free Internet sites (e.g. QTH, QRZ, eHam, etc.), and the HF swap nets, will often result in responses for what you need.

I hope everybody has a safe, enjoyable Memorial holiday weekend. Hopefully it will bring physical, if not financial, recovery from last weekend's Hamvention. But let's not forget the true meaning of Memorial Day.

73,

Evan, K9SQG

-----Original Message-----

From: briandw5470@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, May 23, 2014 4:50 am
Subject: [DrakeRadio] Re: Hi all

Thanks for the great reply! The L-4B came with all the Harbach mods still in their plastic bags. The problems I am having are that someone removed the two large resistors that mount on each side of the power supply transformer and had placed a large string of diodes in line with the high voltage line to the board. I took all that out and installed the Harbach board I have to get the resistors and finish that up.

I then took a look at the RF deck and someone had done some home brew soft start mod and also installed a modern antenna relay. They had cut and moved a lot of wiring and removed the safety interlock so I have spent the last couple days trying to sort that all out and get it back as close to stock as possible before I install the Harbach soft start and soft key. Luckily my brother has two working L-4B's and I have one here to compare which has been a big help so far. I am having trouble finding an original style relay and the interlock system. I have been searching with no luck. Harbach did carry the relay but he is out of stock and told me he didn't know when he would get more in because he has to source a new supplier. So really I have kind off hit a brick wall until I find the parts I suppose.

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21134. Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 16:24:53 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21134

On 5/23/2014 5:06 PM, 'David Stinson' arc5@... [DrakeRadio] wrote:
>
> H-Field antennas like the Ferrite loops seem to me
> to be much less bothered by local terrain.
> And the ability to "steer" them to cancel noise will
> pull many signals out that are completely buried
> in the noise from an E-Field Probe.
>
> About a third of the way down this page:
>
> http://theradioboard.com/rb/viewtopic.php?f=10&t=5260&start=15
>
> is a diagram for the Palomar LA-1 ferrite loop antenna.
> It's a simple device but it works very well.
> I don't recommend buying one- they command a hefty price.
> You should be able to build one just as good in an evening.
> Wind a center-tapped coil on one of your ferrites.
> You'll note a big increase in signals when it's tuned to freq.
> You can cut thin wood or Plexiglass and copy the LA-1's
> friction-fit coil mounting scheme so you can steer and tilt it,
> or devise your own.
> Google "Palomar LA-1 antenna" for more info.
>

Dave, thanks.

I looked at it and it would probably fit my needs. I have everything except the capacitor.

I have three questions. I could not find by a quick web search:

1. How many turns of what wire does one need to put on the loop?
>
2. It looks like the coils are shorter than half of the rod, and wound at each end, instead of one coil either spread out along the length, or in the center.

3. I have more than twice as many J310's as MPF102, would they work?

TIA,
>

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21135. Re: [DrakeRadio] Re: TR-4C s-meter issue

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 19:19:24 UTC
From: aei_01033@...
Topic: 20448 Message: 21135

Exactly.

I recall last year we had to replace the audio output xmfr on another one. The Bogen T-180 as a replacement worked fb.

Yes.....that C-135 is another component to keep tabs on.

Garey - thank you once again.

73
N1CQ

[Non-text portions of this message have been removed]

21136. Signal distortion on strong signals ----tr4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 19:39:05 UTC
From: prosolar@...
Topic: 21136 Message: 21136

Subject line says it all.

Before I dig into this rig, I'm sure someone has had this problem before.

strong signals distort the audio.

Figure it's a R/C issue in the timing circuit. I haven't dug into it yet.

anyone been down this road?

Mike, wb8vge

The Heathkitshop.com

[Non-text portions of this message have been removed]

21137. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 20:17:30 UTC
From: John Magliacane
Topic: 20472 Message: 21137

> > About a third of the way down this page:
> >
> > http://theradioboard.com/rb/viewtopic.php?f=10&t=5260&start=15
> >
> > is a diagram for the Palomar LA-1 ferrite loop antenna.
>

Here are a couple of thoughts after looking at the schematic:

The transistors appear to be drawn from the TOP view. This would place the Gate on the left side, connected to the coil, where it belongs.

I don't feel the connection shown between the transistor's center pin (Source) and the junction between the two 4.7k resistors is correct. It would elevate the sources of both FETs to +9v and bias them OFF. I would eliminate it.

> 1. How many turns of what wire does one need to put on the loop?

That depends on a number of things, such as the permeability of the ferrite, the frequency of interest, etc. The bottom line is you need enough inductance to establish resonance at your frequency of interest with the range of capacitance values provided by the tuning cap.

> 2. It looks like the coils are shorter than half of the rod,
> and wound at each end, instead of one coil either spread out
> along the length, or in the center.

Ferrite rods work best in these applications when the length of the coil is made small with respect to the total length of the rod.

> 3. I have more than twice as many J310's as MPF102, would they work?

MPF102 have become obsolete. J310s are much better devices. You may need to decrease the value of the 1k resistor shown the schematic, as 1K may be too high for the J310s.

Finally, you don't need to use a ferrite loaded coil to build an effective H-Field probe antenna for use on LF frequencies. I typically use air-core coils wound from multi-conductor ribbon cable. These coils are typically several feet in diameter, and are hung from some kind of non-metallic support structure. I have found no need to electrostatically shield these coils, because I typically terminate them in high-Z balanced, differential amplifiers, similar to the Palomar unit referenced above.

And on much lower frequencies (60 kHz and below), I use an instrumentation amplifier, like an Analog Devices AD620, to buffer and amplify the output of the coil.

73, de John, KD2BD

--
Visit John on the Web at:

http://www.qsl.net/kd2bd/

21138. Re: [DrakeRadio] Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-23 20:15:25 UTC
From: David Stover
Topic: 21112 Message: 21138

Hi bill, wb9cac, have you decided on a price for your b line. Let me know when you can. I'm also looking at one other b line. Thanks bill , Dave stover. W6dst. "73".

[Non-text portions of this message have been removed]

21139. TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 02:24:03 UTC
From: Ralph Gent
Topic: 21139 Message: 21139

TR4 Help -resistance measurement confirmation needed. Using the resistance chart in the manual, with the specified function settings, V19 pin 2, is 4.2M in relation to ground. I measure 7.2M on my unit – can someone with a TR4 verify that the manual specified 4.2M is indeed correct.

Thanks

Bruno

[Non-text portions of this message have been removed]

21140. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 02:42:46 UTC
From: Garey Barrell
Topic: 21139 Message: 21140

Bruno -

I wouldn't worry too much about resistance readings unless there is another problem. So much
depends upon what kind of meter you are using, ohmmeter polarity, and if you add that to the
penchant for not changing the table when circuit changes are made ... Aerial number of your TR-4? There were eight (8) versions, plus four (4) versions of the TR-4C

What voltages are you reading on Pin 2? You should see -5 to -6 VDC in receive, and less than
-1 VDC in transmit.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ralph Gent ralph.gent@... [DrakeRadio] wrote:
> TR4 Help -resistance measurement confirmation needed. Using the resistance
> chart in the manual, with the specified function settings, V19 pin 2, is
> 4.2M in relation to ground. I measure 7.2M on my unit – can someone with a
> TR4 verify that the manual specified 4.2M is indeed correct.
>

21141. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 04:10:02 UTC
From: Richard Knoppow
Topic: 21139 Message: 21141

----- Original Message -----
From: "Ralph Gent ralph.gent@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 23, 2014 7:24 PM
Subject: [DrakeRadio] TR4 resistance chart measurement V19
pin 2

TR4 Help -resistance measurement confirmation needed. Using
the resistance
chart in the manual, with the specified function settings,
V19 pin 2, is
4.2M in relation to ground. I measure 7.2M on my unit – can
someone with a
TR4 verify that the manual specified 4.2M is indeed correct.

Thanks

Bruno

I had a look at the schematic. All the paths to ground
from the pin go through diodes except a lead to the PTT
terminal on the mic connector. . Try reversing the leads to
the ohm meter and see what difference it makes. The
handbook does not have specifications for the meter.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21142. Re%3A%20Station%20Monitor%20Scope

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 08:53:30 UTC
From: lane denune
Topic: 21142 Message: 21142

I have a novel MS-4 with a W4 mounted in it to the right side.My HO-10's transformer fizzled out too, would like to find one or trade off the scope which worked really well last year.

[Non-text portions of this message have been removed]

21143. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 10:56:54 UTC
From: ralph.gent@...
Topic: 21139 Message: 21143

Garey:

Yes, I get about -5 in receive and < 1 in transmit so I will assume this portion of the circuit is working correctly. I had loaned out my TR4 to a ham that does plenty of CW work and he had it for a few years, all working good until recently where the K1 relay chatters with the key installed.

So I brought the rig home and started troubleshooting. When I tune up the rig (X-CW) either it will load up correctly or simply not load up and I can still hear audio. When I use a Mic, PTT will close K1 and speaking into the Mic I can see modulation peaks.

I cleaned the K1 relay contacts and function switches, no improvement. The PS was updated a few years back with the Heath board and all voltages look good. Adjusting the Vox, Anti-Vox did not seem to improve. I swapped out V19, V18, V17, V16 and V2 all with no improvement. The bias was measured at -60 with a DMM.

However when I tap the chassis in the area near V2 (in the X-CW position) the the sidetone sometimes comes through the speaker and occasionally K1 kicks in so I am now looking into that area to see if that area is the source of the problem.

Thanks,
Bruno KC2ESI

---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote :

Bruno -

I wouldn't worry too much about resistance readings unless there is another problem. So much
depends upon what kind of meter you are using, ohmmeter polarity, and if you add that to the
penchant for not changing the table when circuit changes are made ... Aerial number of your TR-4? There were eight (8) versions, plus four (4) versions of the TR-4C

What voltages are you reading on Pin 2? You should see -5 to -6 VDC in receive, and less than
-1 VDC in transmit.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Ralph Gent ralph.gent@... mailto:ralph.gent@... [DrakeRadio] wrote:
> TR4 Help -resistance measurement confirmation needed. Using the resistance
> chart in the manual, with the specified function settings, V19 pin 2, is

> 4.2M in relation to ground. I measure 7.2M on my unit – can someone with a
> TR4 verify that the manual specified 4.2M is indeed correct.
>

[Non-text portions of this message have been removed]

21144. Re: [DrakeRadio] Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 11:37:32 UTC
From: Bill Ellis
Topic: 21112 Message: 21144

Dave,

For the T-4XB, R4B, MS-4, AC4, I would like to get $450.00 plus shipping. I'll be back in town this afternoon and will send you some pictures of everything.

73's

Bill Ellis, WB9CAC

On Friday, May 23, 2014 3:48 PM, "David Stover gpastover@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

Hi bill, wb9cac, have you decided on a price for your b line. Let me know when you can. I'm also looking at one other b line. Thanks bill , Dave stover. W6dst. "73".

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21145. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 14:09:46 UTC
From: Jim Shorney
Topic: 20472 Message: 21145

AUX-7s show up now and then on eBay, but they command a premium price. The most cost effective way to find one is in a radio. There are no kits that I know of. I started work on a replacement board, but the learning curve on the CAD software I have is pretty steep and I haven't had a lot of time to persue it. It's easy to "fake" an AUX-7 for LF with a few diodes on the bottom of the parent board:

http://www.zerobeat.net/drakelist/drakemod/tr7mod.html

The foil cut is to enable all-band transmit. This mod is a cheat, and there's a better way that involves a little bit more work.

73

-Jim
NU0C

On Fri, 23 May 2014 08:19:51 +0300, geoffrey mendelson
geoffreymendelson@... [DrakeRadio] wrote:

>I understand the TR7 can be modified to receive on LF and MW. The
>easiest way was to use an AUX-7, which I had 20 years ago, but that went
>with the TR-7 I traded when I left the US. Is it possible to still get
>AUX-7s?

--
The universe we're in will reach absolute zero in three hours. Safe is relative. - Idris, "The Doctor's Wife"

21146. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 14:14:41 UTC
From: Garey Barrell
Topic: 21139 Message: 21146

Typical Voltage and Resistance charts of the time were made with an 11M input impedance Vacuum
Tube VoltMeter, quite often one of the many models from Heath. The MAINTENANCE section of the
manual also specifies an 11M VTVM, and in fact later manuals usually specified such with the V &
R tables, along with specific front panel switch positions on the radio, all of which 'can' affect these readings.

As Richard noted, many of these resistance paths go through diodes on their way to chassis ground, which is the reference point for these readings. ANY resistance reading that goes to a
power supply bus goes through a diode before it gets to ground! So polarity of the DC voltage
applied from the ohmmeter will affect the resistance readings considerably in some instances.
VTVMs almost all used a similar circuit and polarity was 'specified' because the (-) lead was an
alligator clip and the Probe was touched to the specified point. There is also variation depending upon the magnitude of the voltage applied by the meter, which was 1.5 VDC is most all
VTVMs of the day, with some analog Volt OhmMeters having up to 30 VDC for even higher ranges.
Most DMMs use very low voltages, and while color coded, the typically leads are BOTH probes,
which the tech tends to use interchangeably! The internal polarity of the ohmmeter voltage is
also not consistent, probably because most meters are 'auto-polarity' so nobody bothers.....

So. Unless you have a Heath, (or EICO, or RCA, or Precision, or Knight, or Conar, or ....,)
VTVM, I would put the value of resistance measurements in troubleshooting near zero. Even the
voltage table readings are suspect, especially the Grid readings, specifically oscillator stage
Grids. Throw in the occasional table entry from an earlier model not being changed when the circuit changes, and it's hardly worth the energy! There is one entry on a table where the resistance of a tube pin to ground is listed as 'infinite', and there is a 10k resistor to ground. Another is the Screen voltage on the audio output tube is 200 volts and the table shows
150 because earlier models used the regulated voltage.

So start with the Voltage readings. If any are more than 20% off, look at the schematic and trace the path to the voltage bus. If there are resistors, measure the voltage on either side
and use Ohm's law to see if they 'make sense'.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Richard Knoppow' 1oldlens1@... [DrakeRadio] wrote:
> ----- Original Message -----
> From: "Ralph Gent ralph.gent@... [DrakeRadio]"
> <DrakeRadio@yahoogroups.com>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Friday, May 23, 2014 7:24 PM
> Subject: [DrakeRadio] TR4 resistance chart measurement V19
> pin 2
>
>
> TR4 Help -resistance measurement confirmation needed. Using
> the resistance
> chart in the manual, with the specified function settings,
> V19 pin 2, is
> 4.2M in relation to ground. I measure 7.2M on my unit – can
> someone with a
> TR4 verify that the manual specified 4.2M is indeed correct.
>
>
>
>
>
>
> Thanks
>
>
> Bruno
>
> I had a look at the schematic. All the paths to ground
> from the pin go through diodes except a lead to the PTT
> terminal on the mic connector. . Try reversing the leads to
> the ohm meter and see what difference it makes. The
> handbook does not have specifications for the meter.
>
>

21147. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 14:31:08 UTC
From: Garey Barrell
Topic: 21139 Message: 21147

Bruno -

The problem is that V2 is operated as a phase shift oscillator in CW, generating the SIDETONE
and keying the relay. This is usually V2, a less than reliable tube. If you're confident of your replacement then you'll have to look at the wiring around that tube, especially R126 - R130
and the associated capacitors, which is the phase shift network. Do the screwdriver test first,
check every screw in the area to make sure it is tight. Examine solder connections to be sure
none are cracked or shorting.

You're in the right area, just figure out why that 'oscillator', ISN'T and you'll have it! Possibly still a tube, or 'mechanical'.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

ralph.gent@... [DrakeRadio] wrote:
> Garey:
>
>
>
> Yes, I get about -5 in receive and < 1 in transmit so I will assume this portion of the circuit is working correctly. I had loaned out my TR4 to a ham that does plenty of CW work and he had it for a few years, all working good until recently where the K1 relay chatters with the key installed.
>
>
>
> So I brought the rig home and started troubleshooting. When I tune up the rig (X-CW) either it will load up correctly or simply not load up and I can still hear audio. When I use a Mic, PTT will close K1 and speaking into the Mic I can see modulation peaks.
>
>
>
> I cleaned the K1 relay contacts and function switches, no improvement. The PS was updated a few years back with the Heath board and all voltages look good. Adjusting the Vox, Anti-Vox did not seem to improve. I swapped out V19, V18, V17, V16 and V2 all with no improvement. The bias was measured at -60 with a DMM.
>

>
>
> However when I tap the chassis in the area near V2 (in the X-CW position) the the sidetone sometimes comes through the speaker and occasionally K1 kicks in so I am now looking into that area to see if that area is the source of the problem.
>
>
>
> Thanks,
>
> Bruno KC2ESI
>
>
>
>
>
>
>
> ---In DrakeRadio@yahoogroups.com, <k4oah@...> wrote :
>
>
>
>
>
> Bruno -
>
>
>
> I wouldn't worry too much about resistance readings unless there is another problem. So much
>
> depends upon what kind of meter you are using, ohmmeter polarity, and if you add that to the
>
> penchant for not changing the table when circuit changes are made ... Aerial number of your
>
> TR-4? There were eight (8) versions, plus four (4) versions of the TR-4C
>
>
>
> What voltages are you reading on Pin 2? You should see -5 to -6 VDC in receive, and less than
>
> -1 VDC in transmit.
>
>
>
> 73, Garey - K4OAH
>

> Glen Allen, VA
>
>
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> and TR-4/C Service Supplement CDs
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>
>
>
> Ralph Gent ralph.gent@... mailto:ralph.gent@... [DrakeRadio] wrote:
>
> > TR4 Help -resistance measurement confirmation needed. Using the resistance
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>> chart in the manual, with the specified function settings, V19 pin 2, is
>> 4.2M in relation to ground. I measure 7.2M on my unit – can someone with a
>> TR4 verify that the manual specified 4.2M is indeed correct.
>

21148. TR4 or TR4c Relays Replaced

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 16:11:46 UTC
From: Radio Vintage
Topic: 21148 Message: 21148

Hi

In some models of TR4c the relay controlled by the valve 6ev7 was replaced with a normal relay to 48 volts and with another type of valve, who can give me news about this change, thanks
Vintageradio Frank

[Non-text portions of this message have been removed]

21149. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 17:50:06 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21149

On 5/24/2014 5:09 PM, 'Jim Shorney' jshorney@... [DrakeRadio]
wrote:
>
>
> AUX-7s show up now and then on eBay, but they command a premium price.
> The most
> cost effective way to find one is in a radio. There are no kits that I
> know of.
> I started work on a replacement board, but the learning curve on the CAD
> software I have is pretty steep and I haven't had a lot of time to
> persue it.
> It's easy to "fake" an AUX-7 for LF with a few diodes on the bottom of the
> parent board:
>
> http://www.zerobeat.net/drakelist/drakemod/tr7mod.html
>
> The foil cut is to enable all-band transmit. This mod is a cheat, and
> there's a
> better way that involves a little bit more work.
>

Jim, thanks.

I was looking at the set of extender boards I bought for the TR-7 and
IMHO, there is not a lot more technology in the AUX-7. It may need more
work to get them designed, and more soldering to populate them, but one
of the extenders is fairly complex.

What I would need, and I think would be popular (as popular as an add on
for an almost 40 year old radio would be), would one that slides in
(hopefully only one way), and gives you the three low bands reception,
and WARC band transmission. I understand that the all frequencies
transmit mod is cleaner to use, but this keeps it as close to stock as
possible.

Is the guy that sells the extender boards on this list?
>
Thanks and 73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21150. Re: [DrakeRadio] TR4 or TR4c Relays Replaced

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:16:49 UTC
From: Garey Barrell
Topic: 21148 Message: 21150

Frank -

Late models of the TR-4C substituted a 6FQ7 when Drake was unable to get production quantities
of 6EV7 tubes.

The circuit is functionally equivalent, and the tubes are interchangeable. Where used, the original Varley relay with a 15k ohm coil, replacing it with the new P&B Tyco R10-E1-Y4-V2.5k
(48 VDC) relay requires the installation of a 1.5k, 1W resistor in series with the coil. R143
should also be checked, older versions had a 680k resistor, the 6FQ7 needs a 330k at R143. The
6FQ7 is unfortunately a choice of the audiophile crowd, so is usually considerably more expensive than the 6EV7. [Either tube will work with either relay]

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

Radio Vintage radiovintage2000@... [DrakeRadio] wrote:
> Hi
>
> In some models of TR4c the relay controlled by the valve 6ev7 was replaced with a normal relay to 48 volts and with another type of valve, who can give me news about this change, thanks
> Vintageradio Frank
>
>

21151. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:22:52 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21151

John, thanks,
>
> Here are a couple of thoughts after looking at the schematic:
>
> The transistors appear to be drawn from the TOP view. This would place
> the Gate on the left side, connected to the coil, where it belongs.
>
Ok, important to know. I was planing on checking the connections before
I connected that, but we all know how well that works. :-)

> I don't feel the connection shown between the transistor's center pin
> (Source) and the junction between the two 4.7k resistors is correct.
> It would elevate the sources of both FETs to +9v and bias them OFF. I
> would eliminate it.
>

Ok, thanks, easy enough to do.
>
>
> > 1. How many turns of what wire does one need to put on the loop?
>
> That depends on a number of things, such as the permeability of the
> ferrite, the frequency of interest, etc. The bottom line is you need
> enough inductance to establish resonance at your frequency of interest
> with the range of capacitance values provided by the tuning cap.
>
> > 2. It looks like the coils are shorter than half of the rod,
> > and wound at each end, instead of one coil either spread out
> > along the length, or in the center.
>
> Ferrite rods work best in these applications when the length of the
> coil is made small with respect to the total length of the rod.
>

That was a lot of fun. I did more research and found out a lot I did not
know. The LA-1 is the box, not the loop. The loops are separate. They
plug into a stereo type plug (1/4 inch?) on the top, hence the T(tip), S
(sleeve), R (ring) on the drawing.

I found that Universal Radio had the specs for the loops on their web
page for the LA-1, and using a resonant frequency calculator could
figure out the inductance needed. I have a Chinese inductance meter, one
of the little ones with no manual, but I guess I can get it to do what I
needed when I wind the loops.

Using the spec of a capacitor that goes from 25-875 PF (wow!!!), I took the lower frequency, reduced it by 10% and figured out what the inductance should be, when I calculated the high end using the inductance I calculated and the lowest value of the capacitor, I found that it had a lot more range than listed.

The loops are: (official frequency range)
OMEGA: (10-40kHz) 376mh.
WWVB: (40-150kHz) 27mh.
BCB: (550-1600kHz) 120 uh.
160m/80m: (1700-6000kHz) 12 uh.
HF-1: (5000-16000Hz) 1.47uh
mh are milihenrys, uh are microhenrys.

The 160/80 and HF-1 loops are wire loops with no ferrite in them. They came in plastic tubing made into a square, with only azimuth adjustment. The other loops are wound on ferrite rods, and have both elevation and azimuth adjustments.

For my purposes, I figured that I could just build the loops I wanted, without the elevation feature. Since I don't have a variable capacitor (but all the other parts including the ferrite rods), I could just get a cheap 15-365PF capacitor similar to the ones used in crystal radios. Since Universal Radio sold an LA-1 with HF loop for under $100 in Februrary, it seemed foolish to me to duplicate it if the parts cost close to that price.

With a 365PF capacitor, I found I could use: The second frequency is the top calculated resonance with a 15PF capacitor. I doubt it would really go that high, and with the HF loop have any gain.

LF: 3.08mh. 750kHz.
BCB: 2.83 uh. 2400kHz
160/180: 29uh. 7600kHz
HF: 3uh. 23mHz.

>
> > 3. I have more than twice as many J310's as MPF102, would they work?
>
> MPF102 have become obsolete. J310s are much better devices. You may
> need to decrease the value of the 1k resistor shown the schematic, as
> 1K may be too high for the J310s.
>

Any idea of what to use? Or a pointer to what to reduce/increase in order to get them to work properly?

>
> Finally, you don't need to use a ferrite loaded coil to build an
> effective H-Field probe antenna for use on LF frequencies. I typically
> use air-core coils wound from multi-conductor ribbon cable. These
> coils are typically several feet in diameter, and are hung from some
> kind of non-metallic support structure. I have found no need to

> electrostatically shield these coils, because I typically terminate
> them in high-Z balanced, differential amplifiers, similar to the
> Palomar unit referenced above.
>

Ok, I have the ferrite rods, so I might as well use them. :-)

>
> And on much lower frequencies (60 kHz and below), I use an
> instrumentation amplifier, like an Analog Devices AD620, to buffer and
> amplify the output of the coil.
>
Not much chance of my ever seeing one of those, or even if I had one
receiving anything on the lower frequencies. From other's experience I
am well outside the range of both WWVB and the 50kHz EU stations.

And to keep it the least little bit on topic, am I correct in assuming
that if I were to build a single, not split loop to those specs, and
plugged it into the loop socket of the SPR-4, it would work?

Thanks and 73.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21152. T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:34:27 UTC
From: David Nichols
Topic: 21152 Message: 21152

Hi Garey,
I have confirmed the fact that my T-4XB did not have the negative voltage to the finals when the resistors blew.
I have replaced the resistors and repaired the problem with the bias voltage. I have attempted to tune up and I dont like what it is doing. I believe something else must be awry. When I get it to max power the Plate tune is at 3 o'clock and it should not be. I feel some capacitance must now be missing. What are the chances on C61 being bad? I will check but I thought you might get me to the spot I need to look. Those road maps called schematics confuse me sometimes. Is there another tube that might have bit the dust? The good thing is I didnt get anymore fireworks when I turned it on.

David - KX7C

[Non-text portions of this message have been removed]

21153. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:39:50 UTC
From: Garey Barrell
Topic: 20472 Message: 21153

Geoff -

See <http://www.wb4hfn.com/DRAKE/DrakeArticles/TechTips/Homebrew_AUX-7.htm>

and

<http://www.wb4hfn.com/Services/W7AVK/tr7ext2.htm>

No, Bob is not a member of this list...

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
<www.k4oah.com>

What I would need, and I think would be popular (as popular as an add on
for an almost 40 year old radio would be), would one that slides in
(hopefully only one way), and gives you the three low bands reception,
and WARC band transmission.

Is the guy that sells the extender boards on this list?

21154. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:43:21 UTC
From: Jim Shorney
Topic: 20472 Message: 21154

Hi Geoff,

On Sat, 24 May 2014 20:50:06 +0300, geoffrey mendelson
geoffreymendelson@... [DrakeRadio] wrote:

>I was looking at the set of extender boards I bought for the TR-7 and
>IMHO, there is not a lot more technology in the AUX-7. It may need more
>work to get them designed, and more soldering to populate them, but one
>of the extenders is fairly complex.

The AUX-7, if you ignore the fixed frequency (crystal) oscillator stuff that most people will never ever use, is just diodes and wires. It doesn't get much simpler than that.

>What I would need, and I think would be popular (as popular as an add on
>for an almost 40 year old radio would be), would one that slides in
>(hopefully only one way), and gives you the three low bands reception,
>and WARC band transmission. I understand that the all frequencies
>transmit mod is cleaner to use, but this keeps it as close to stock as
>possible.

The board I started work on would have the flexibility to do that. Offering it as a "kit" is not something that is in the cards right now as logistically I just don't have the time for it.

>Is the guy that sells the extender boards on this list?

I don't know, but his info is here:

http://www.wb4hfn.com/Services/W7AVK/tr7ext2.htm

... which evolved from my original extender board page here:

http://incolor.inetnebr.com/jshorney/tr7ext.htm

73

-Jim
NU0C

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

21155. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 18:52:45 UTC
From: Garey Barrell
Topic: 21152 Message: 21155

David -

Yep, that'll do it!!! :-)

Need a little more information..... C61 is NOT a 'likely' culprit.

1. Are both PA tubes 'lit'?

2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.

3. Is your dummy load / antenna / coax good?? Low SWR?

4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.

5. What does the PLATE meter read when 'dipped' at MAX output?

This will give us a start!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Hi Garey,
> I have confirmed the fact that my T-4XB did not have the negative voltage to the finals when the resistors blew.
> I have replaced the resistors and repaired the problem with the bias voltage. I have attempted to tune up and I dont like what it is doing. I believe something else must be awry. When I get it to max power the Plate tune is at 3 o'clock and it should not be. I feel some capacitance must now be missing. What are the chances on C61 being bad? I will check but I thought you might get me to the spot I need to look. Those road maps called schematics confuse me sometimes. Is there another tube that might have bit the dust? The good thing is I didnt get anymore fireworks when I turned it on.
>
> David - KX7C
>
>

21156. Re: [DrakeRadio] Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 22:09:08 UTC
From: Roger Roger
Topic: 21112 Message: 21156

Thats a steal!

--
W5RJH

[Non-text portions of this message have been removed]

21157. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 22:18:15 UTC
From: David Nichols
Topic: 21152 Message: 21157

Ok Garey,
I got things mixed up on the upside down rig. I thought I was on 40m and I had the switch on 80m.
I was looking for it to tune up on 40 and things was not looking right. Now that I have that figured out it looks a lot better. Thank goodness! I think I have messed it up enough already.

That said, I did install a pair of 6JB6's, ok tubes. Not new but fairly well matched and good.
I replaced the blown resistors R32/33 with a matched pair of Ohmite Ceramic Comp. 15 ohm @ 10% 1watt. I got six so I could pick the closest ones to use.

I replaced R36 with KOA Speer Metal Oxide 3.3 ohm 1/2 watt @ 5%.

1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.

2. Idle current is setup and looking good. The voltage across the resistors is different. R33 on V6 measures about .5+ the digital meter is fluctuating and did not settle down. R32 on V5 is lower at .4.
3. Dummy load is good its the dummy running it I wonder about. hi hi
4. Load looks better now, on 40 meters @ 3.5 and the Plate is @ 7.
5 Plate meter is reading .22.
Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
I think I keep thinking its an 80 to 10 meter rig and I disregard the fact this one has 160 in it.

I hope you have a good weekend Garey
David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 24, 2014 11:52 AM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

Yep, that'll do it!!! :-)

Need a little more information..... C61 is NOT a 'likely' culprit.

1. Are both PA tubes 'lit'?

2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.

3. Is your dummy load / antenna / coax good?? Low SWR?

4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.

5. What does the PLATE meter read when 'dipped' at MAX output?

This will give us a start!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
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>
> David - KX7C
>
>

[Non-text portions of this message have been removed]

21158. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 22:56:58 UTC
From: Garey Barrell
Topic: 21152 Message: 21158

David -

OK, we were all where you are once upon a time! :-)

Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across
either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
is passing 33 mA of idle current, and V5 is only passing 27 mA for a total of 60 mA. You need
to select a new R38 value that will make the meter read 60 mA, then re-adjust the BIAS for 70
mA. Since the tubes aren't matched, one is handling 21.6W and the other is 17.6W for a total of
39.2W than the 45.5W, equally shared that it should be. This is not all that important right
now, but should be fixed if you want it RIGHT! :-)

I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
so not really all that important.

Your 220 mA is 144W input, which should give you about 79W output, right where I'd expect.
That's good, although low. Perfect would be .340 on the PLATE meter, for 220W input, and about
122W output. You could load for more, but those are the design values.

A new pair of PA tubes, and a new R38 and you should be right on the mark!! Good work!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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David Nichols hamcomm7@... [DrakeRadio] wrote:
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> 1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.
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> David - KX7C
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>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
>
>
>
>
> David -
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> Yep, that'll do it!!! :-)
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>> David - KX7C
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> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
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>
> Yahoo Groups Links
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21159. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 23:01:20 UTC
From: David Nichols
Topic: 21152 Message: 21159

Ill read this again to make sure I follow what you are saying.
I was just able to neutralize the tubes so I will check the readings again.
I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.

David - KX7C

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 24, 2014 3:56 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

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39.2W than the 45.5W, equally shared that it should be. This is not all that important right
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I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
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> David - KX7C
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> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
>
>
>
>
> David -

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> Yep, that'll do it!!! :-)
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> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@yahoo.com>

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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

21160. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-24 23:45:29 UTC
From: David Nichols
Topic: 21152 Message: 21160

Alright Garey,
I went to change the tubes because there wasnt any difference. The suppressor came off in my hand so I am making some new ones. I have another fresh set of Sylvanias on the way and am hoping they are as good as advertised. I do have another set I can use for now. When I get it back together I will get on with what I was doing. I am using some ceramic comps to put the coil on they are smaller in diameter but equal in length so there will be a little gap between the resistor and the coil. Ive seen some of them be just loops so Im thinking this wont matter.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 24, 2014 4:01 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

Ill read this again to make sure I follow what you are saying.
I was just able to neutralize the tubes so I will check the readings again.
I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.

David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 24, 2014 3:56 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

OK, we were all where you are once upon a time! :-)

Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
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Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
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>> David - KX7C
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> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
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> Yahoo Groups Links
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21161. AC-4 ON EBAY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 00:21:03 UTC
From: David Nichols
Topic: 21161 Message: 21161

If you are biding on the one with the box, take a look at the shipping costs.
David - KX7C

[Non-text portions of this message have been removed]

21162. Re: [DrakeRadio] AC-4 ON EBAY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 00:36:11 UTC
From: Joe - W7RKN
Topic: 21161 Message: 21162

Heh...I saw that on eBay!

I sent a 'private' to him, questioning the price of shipping...and he also selling an MS_4...also ridiculous shipping...What was it...60 for the PS and 40 for the box....GAH! I won't bother to bid on either.

The MS-4 fits in a Regional Rate C box just fine...not much spare room, but we are only talking 5 pounds tops...he won't do it....BTW..shipping on that 'C' box from Merrick (I think that is where he is) NY to my home in Reno, Nevada, was only 19 bucks.

I think Paul K. has an AC-3 that I will buy from him...I need it so I can sell an Early Drake '4' set....T-4x and R-4A. Besides...I trust Paul! The guy on eBay..don't know him from Adam.....

Joe - W7RKN

----- Original Message -----
From: "David Nichols hamcomm7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] AC-4 ON EBAY

> If you are biding on the one with the box, take a look at the shipping
> costs.
> David - KX7C
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>
> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
> ------------------------------------
>
> Yahoo Groups Links
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21163. Re: [DrakeRadio] Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 01:08:16 UTC
From: gpastover@...
Topic: 21112 Message: 21163

Greetings Bill, wb9cac, I am ready to purchase your b line as long as the face plates are not scratched and the lettering and finish is not worn or faded. I'm not too concerned about the ms4 appearance, that can be refinished. Are there any known issues past or present. Just to recap, b line with cables, ac4 with upgrade, ms4, & a d104 mic for $450.00 plus shipping. Sounds good to me. Still would like to see a few pics. Let me know when you can.
Thanks Bill, Dave. W6dst. "73",

Sent from my iPad

> On May 24, 2014, at 4:37 AM, "Bill Ellis wb9cac@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Dave,
>
> For the T-4XB, R4B, MS-4, AC4, I would like to get $450.00 plus shipping. I'll be back in town this afternoon and will send you some pictures of everything.
>
> 73's
>
> Bill Ellis, WB9CAC
>
> On Friday, May 23, 2014 3:48 PM, "David Stover gpastover@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
>
>
> Hi bill, wb9cac, have you decided on a price for your b line. Let me know when you can. I'm also looking at one other b line. Thanks bill , Dave stover. W6dst. "73".
>
> [Non-text portions of this message have been removed]
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[Non-text portions of this message have been removed]

21164. Re: [DrakeRadio] Re: B line wanted

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 01:16:21 UTC
From: vacuuminded2@...
Topic: 21112 Message: 21164

Please complete your sale/private dealings off-list, guys..

C

Sent from my outdated iPhone wireless thingy

On May 24, 2014, at 8:08 PM, "gpastover@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Greetings Bill, wb9cac, I am ready to purchase your b line as long as the face plates are not scratched and the lettering and finish is not worn or faded. I'm not too concerned about the ms4 appearance, that can be refinished. Are there any known issues past or present. Just to recap, b line with cables, ac4 with upgrade, ms4, & a d104 mic for $450.00 plus shipping. Sounds good to me. Still would like to see a few pics. Let me know when you can.
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21165. T-4XB SUPPRESSOR REBUILD

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 01:35:50 UTC
From: David Nichols
Topic: 21165 Message: 21165

HERE ARE A COUPLE OF PICTURES GAREY.
DAVID - KX7C

[Non-text portions of this message have been removed]

21166. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 02:10:09 UTC
From: ralph.gent@...
Topic: 21139 Message: 21166

Garey:

Agreed, the V2 area is the one of interest. I did a double take and this time around measured the voltages at the pins. Both pins 1 & 2 showed about 200VDC (definitely no good) and when tapping the chassis the voltages would disappear. As I look at the schematic the only way the grids would get that kind of voltage is via the V2 plate. So I installed another 12AV6 (third one) and this time around all seems to be working correctly; initially that is.

Tuning up in X-CW is right on; however, when the relay returns back to RX the audio almost sounds as if sideband was changed even though lower sideband is lit on 40. Engaging X-CW a few times and sometimes the audio sounds correct and off sideband the next time around; I get the same effect switching the sideband function. I don't have another 12AV6 so I'll send away for a few and hopefully they will turn out good.

Thanks for your help, I'll report back when I get another 12AV6.

Thanks,
Bruno KC2ESI

[Non-text portions of this message have been removed]

21167. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 02:31:08 UTC
From: Garey Barrell
Topic: 21139 Message: 21167

Bruno -

OK. That 12AV6 isn't one of my favorite tubes... ! :-)

The Carrier Oscillator is shifted off frequency in CW by the small relay on the back wall right
near the CAR OSC. Sounds like perhaps it isn't operating reliably. It's an interesting circuit, the relay coil (12 VDC) is in series with the +150 VDC to the screen of V15. The relay
is de-energized on SSB by shorting out the coil with switch contacts on the back side of the
first wafer of the MODE switch. The switch is 'closed' (shorting out the relay coil) in CAL and
SSB positions, and 'open' (causing the relay to close) and shift the CAR OSC about 1 kHz up,
ONLY when the T-R relay is closed. Confusing, I know... Essentially the relay K2 (CAR OSC) is
energized ONLY when CW or AM MODE is selected, AND relay K1 (T-R) relay is closed. When the transmitter VOX releases, BOTH relays should de-energize.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

ralph.gent@... [DrakeRadio] wrote:
> Garey:
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>
> Thanks for your help, I'll report back when I get another 12AV6.
>
> Thanks,

> Bruno KC2ESI
>

21168. Re: [DrakeRadio] TR4 or TR4c Relays Replaced

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 03:09:18 UTC
From: Steve VK2SJA
Topic: 21148 Message: 21168

Hi Garey,

Very interesting.

I just checked my TR-4C S/N 36805. V19 is a 6EV7 and the circuit diagram I'm using from your CD is called "TR-4C Schematic 35161" which shows 6EV7. This is the correct circuit to be looking at, Yes?

However my installed relay is a 48vdc with 2.5k ohm coil. Early on when I had trouble with relays pulling-in I bought a spare. It is also a newer 48v 2.5k ohm coil. Since the new relay did not "fix" the problem at the time I back swapped to the original unit that was installed.

However I've just checked and I do NOT have a 1.5k ohm 1 watt resistor in series with the coil as shown in the later circuit called "TR-4C Schematic 42500". This circuit gives this resistor designation R194. (Which just by the way, is missing from the version of your TR-4C service guide I have. But paradoxically, the same guide lists R143 as the newer 330K and not the older 680K. Anyway no biggie but I thought I'd mention it in passing).

So assuming I have correctly got my head around all this. My questions are:

What effect/symptom is caused by running the rig with the 2.5k coil with R194 missing? As it begins to look like the previous owner replaced the original relay but didn't know to install R194.

Next question. Where did Drake install R194. At the base of V19 or behind the the relay on the relay PCB?

73, Steve

> Frank -
>
> Late models of the TR-4C substituted a 6FQ7 when Drake was unable to get
> production quantities
> of 6EV7 tubes.
>
> The circuit is functionally equivalent, and the tubes are interchangeable.
> Where used, the
> original Varley relay with a 15k ohm coil, replacing it with the new P&B
> Tyco R10-E1-Y4-V2.5k
> (48 VDC) relay requires the installation of a 1.5k, 1W resistor in series
> with the coil. R143
> should also be checked, older versions had a 680k resistor, the 6FQ7 needs
> a 330k at R143. The
> 6FQ7 is unfortunately a choice of the audiophile crowd, so is usually
> considerably more

> expensive than the 6EV7. [Either tube will work with either relay]
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Radio Vintage radiovintage2000@... [DrakeRadio] wrote:
>> Hi
>>
>> In some models of TR4c the relay controlled by the valve 6ev7 was
>> replaced with a normal relay to 48 volts and with another type of valve,
>> who can give me news about this change, thanks
>> Vintageradio Frank
>>
>>
>
>

21169. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 04:10:44 UTC
From: David Nichols
Topic: 21152 Message: 21169

Ok now, Garey, I changed the tubes out but when I couldnt neutralize them I changed those out.
Now I cant find a sweet spot to neutralize these either. The voltage on the resistors looks good with these but its like the neutralizing cap isnt doing anything.

Am I going to have to change the suppressor resistors back to carbon?
I have a pair so I can do that, it was working before I changed those.
Ill see tomorrow, Im getting tired out tonight.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 24, 2014 4:45 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

Alright Garey,
I went to change the tubes because there wasnt any difference. The suppressor came off in my hand so I am making some new ones. I have another fresh set of Sylvanias on the way and am hoping they are as good as advertised. I do have another set I can use for now. When I get it back together I will get on with what I was doing. I am using some ceramic comps to put the coil on they are smaller in diameter but equal in length so there will be a little gap between the resistor and the coil. Ive seen some of them be just loops so Im thinking this wont matter.
David - KX7C

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 24, 2014 4:01 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

Ill read this again to make sure I follow what you are saying.
I was just able to neutralize the tubes so I will check the readings again.
I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.

David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 24, 2014 3:56 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

OK, we were all where you are once upon a time! :-)

Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across
either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
is passing 33 mA of idle current, and V5 is only passing 27 mA for a total of 60 mA. You need
to select a new R38 value that will make the meter read 60 mA, then re-adjust the BIAS for 70
mA. Since the tubes aren't matched, one is handling 21.6W and the other is 17.6W for a total of
39.2W than the 45.5W, equally shared that it should be. This is not all that important right
now, but should be fixed if you want it RIGHT! :-)

I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
so not really all that important.

Your 220 mA is 144W input, which should give you about 79W output, right where I'd expect.
That's good, although low. Perfect would be .340 on the PLATE meter, for 220W input, and about
122W output. You could load for more, but those are the design values.

A new pair of PA tubes, and a new R38 and you should be right on the mark!! Good work!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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David Nichols hamcomm7@... [DrakeRadio] wrote:
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> Ok Garey,
> I got things mixed up on the upside down rig. I thought I was on 40m and I had the switch on 80m.
> I was looking for it to tune up on 40 and things was not looking right. Now that I have that figured out it looks a lot better. Thank goodness! I think I have messed it up enough already.
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> That said, I did install a pair of 6JB6's, ok tubes. Not new but fairly well matched and good.
> I replaced the blown resistors R32/33 with a matched pair of Ohmite Ceramic Comp. 15 ohm @ 10% 1watt. I got six so I could pick the closest ones to use.
>
> I replaced R36 with KOA Speer Metal Oxide 3.3 ohm 1/2 watt @ 5%.
>
> 1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.

>
> 2. Idle current is setup and looking good. The voltage across the resistors is different. R33 on V6 measures about .5+ the digital meter is fluctuating and did not settle down. R32 on V5 is lower at .4.
> 3. Dummy load is good its the dummy running it I wonder about. hi hi
> 4. Load looks better now, on 40 meters @ 3.5 and the Plate is @ 7.
> 5 Plate meter is reading .22.
> Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
> I think I keep thinking its an 80 to 10 meter rig and I disregard the fact this one has 160 in it.
>
> I hope you have a good weekend Garey
> David - KX7C
>
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
>
>
>
>
> David -
>
> Yep, that'll do it!!! :-)
>
> Need a little more information..... C61 is NOT a 'likely' culprit.
>
> 1. Are both PA tubes 'lit'?
>
> 2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
> each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.
>
> 3. Is your dummy load / antenna / coax good?? Low SWR?
>
> 4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.
>
> 5. What does the PLATE meter read when 'dipped' at MAX output?
>
> This will give us a start!!
>
> 73, Garey - K4OAH
> Glen Allen, VA

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> <www.k4oah.com>
>
> David Nichols hamcomm7@yahoo.com [DrakeRadio] wrote:
>> Hi Garey,
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>>
>> David - KX7C
>>
>>
>
>
>
> [Non-text portions of this message have been removed]
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>
>
> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
> ------------------------------------
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

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[Non-text portions of this message have been removed]

21170. Re: [DrakeRadio] more tr7 questions

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 04:22:28 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21170

On 5/24/2014 9:39 PM, Garey Barrell k4oah@... [DrakeRadio] wrote:
>
>
> See
> <http://www.wb4hfn.com/DRAKE/DrakeArticles/TechTips/Homebrew_AUX-7.htm>
>
> and
>
> <http://www.wb4hfn.com/Services/W7AVK/tr7ext2.htm>
>
> No, Bob is not a member of this list...
>
Garey, Bob is the person I bought the extender boards from. I did see
his AUX-7 article, but do not have the eyesight, patience, nor skill to
build one.

I'll send him an email and ask.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21171. T-4XC PTO Spring

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 06:45:46 UTC
From: L L bahr
Topic: 21148 Message: 21171

I am in need of the long springs mounted on a C-line PTO for my T-4XC transmitter I recently acquired and am restoring. (Puts rear tension on the PTO shaft.) I've never needed one before, but it seems to me this was once covered as a topic and there was a source given. By chance was it maybe McMaster-Carr or maybe Small Parts? So head me in the right direction. Where can I obtain one?
Thanks,

Lee, w0vt

[Non-text portions of this message have been removed]

21172. LB-4 used, but original Pwr Sply Boards

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 12:45:13 UTC
From: kris merschrod
Topic: 21172 Message: 21172

Does anyone want a pair of the L4-B power supply boards? As a preventative effort I have replaced the originals with a Harbach kit. The original boards are complete except the one from which I removed the brackets to install the harbach board.

It was twenty years since I fired up the L4-B so, as the saying goes, “I worked fine the last time that I used it!”

Contact me off the net if you can use them,

Kris KM2KM

MERSCHROD

123 Warren Road

Ithaca, NY 14850

Skype: Merschrod

From: DrakeRadio@yahoogroups.com [mailto:DrakeRadio@yahoogroups.com]
Sent: Sunday, May 25, 2014 5:49 AM
To: DrakeRadio@yahoogroups.com
Subject: [DrakeRadio] Digest Number 2677

<https://groups.yahoo.com/neo;_ylc=X3oDMTJlbXA3YnBmBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTQwMTAxMTMyMw--> Yahoo! Groups

<https://groups.yahoo.com/neo/groups/DrakeRadio/info;_ylc=X3oDMTJlZWt0YWZuBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDaGRyBHNsawNocGgEc3RpbWUDMTQwMTAxMTMyMw--> Drake Radios Group

14 Messages

Digest #2677

1a

Re: T-4XB BIAS SUPPLY by "Garey Barrell" k4oah

1b

Re: T-4XB BIAS SUPPLY by "David Nichols" hamcomm7

1c

Re: T-4XB BIAS SUPPLY by "David Nichols" hamcomm7

1d

Re: T-4XB BIAS SUPPLY by "David Nichols" hamcomm7

2a

AC-4 ON EBAY by "David Nichols" hamcomm7

2b

Re: AC-4 ON EBAY by "Joe - W7RKN" wa6rkn

3a

Re: B line wanted by

3b

Re: B line wanted by vacuuminded2

4

T-4XB SUPPRESSOR REBUILD by "David Nichols" hamcomm7

5a

Re: TR4 resistance chart measurement V19 pin 2 by stockman_11743

5b

Re: TR4 resistance chart measurement V19 pin 2 by "Garey Barrell" k4oah

6a

Re: TR4 or TR4c Relays Replaced by "Steve VK2SJA" vk2sja

7a

Re: more tr7 questions by "geoffrey mendelson" gsmendelson

8a

T-4XC PTO Spring by "L L bahr" pulsarair

Messages

1a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21158;_ylc=X3oDMTJzcnNnNWpnBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE1OARzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: T-4XB BIAS SUPPLY

Sat May 24, 2014 3:56 pm (PDT) . Posted by:

<mailto:k4oah@...?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> "Garey Barrell" k4oah

David -

OK, we were all where you are once upon a time! :-)

Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably

indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
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> David - KX7C
>
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
>
>
>
>
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>>
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> [Non-text portions of this message have been removed]
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>
>
> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
> ------------------------------------
>
> Yahoo Groups Links
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>

<mailto:k4oah@...?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21158;_ylc=X3oDMTJzMnZ1NmdqBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE1OARzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21158> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21152;_ylc=X3oDMTM4ZjZmbjh2BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE1OARzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTUy> All Messages (7) . Top ^

1b

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21159;_ylc=X3oDMTJzaWg0Zm9xBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE1OQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: T-4XB BIAS SUPPLY

Sat May 24, 2014 4:04 pm (PDT) . Posted by:

<mailto:hamcomm7@...?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> "David Nichols" hamcomm7

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Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 24, 2014 11:52 AM
> Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY
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1c

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21160;_ylc=X3oDMTJzaHR1a2VoBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MARzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: T-4XB BIAS SUPPLY

Sat May 24, 2014 4:48 pm (PDT) . Posted by:

<mailto:hamcomm7@...?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> "David Nichols" hamcomm7

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To: "DrakeRadio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 24, 2014 4:01 PM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

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Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

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1d

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21169;_ylc=X3oDMTJzcHRmYjg4BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2OQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: T-4XB BIAS SUPPLY

Sat May 24, 2014 9:13 pm (PDT) . Posted by:

<mailto:hamcomm7@...?subject=Re%3A%20T-4XB%20BIAS%20SUPPLY> "David Nichols" hamcomm7

Ok now, Garey, I changed the tubes out but when I couldnt neutralize them I changed those out.
Now I cant find a sweet spot to neutralize these either. The voltage on the resistors looks good with these but its like the neutralizing cap isnt doing anything.

Am I going to have to change the suppressor resistors back to carbon?
I have a pair so I can do that, it was working before I changed those.
Ill see tomorrow, Im getting tired out tonight.
David - KX7C

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2a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21161;_ylc=X3oDMTJzYWFkYmFyBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> AC-4 ON EBAY

Sat May 24, 2014 5:24 pm (PDT) . Posted by:

<mailto:hamcomm7@...?subject=Re%3A%20AC-4%20ON%20EBAY> "David Nichols" hamcomm7

If you are biding on the one with the box, take a look at the shipping costs.
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<mailto:hamcomm7@...?subject=Re%3A%20AC-4%20ON%20EBAY> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20AC-4%20ON%20EBAY> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21161;_ylc=X3oDMTJzbTZwZ24zBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MQRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21161> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21161;_ylc=X3oDMTM4cTcwYnFmBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MQRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTYx> All Messages (2) . Top ^

2b

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21162;_ylc=X3oDMTJzb2llNmhlBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MgRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: AC-4 ON EBAY

Sat May 24, 2014 5:36 pm (PDT) . Posted by:

<mailto:w7rkn.7@...?subject=Re%3A%20AC-4%20ON%20EBAY> "Joe - W7RKN" wa6rkn

Heh...I saw that on eBay!

I sent a 'private' to him, questioning the price of shipping...and he also selling an MS_4...also ridiculous shipping...What was it...60 for the PS and 40 for the box....GAH! I won't bother to bid on either.

The MS-4 fits in a Regional Rate C box just fine...not much spare room, but we are only talking 5 pounds tops...he won't do it....BTW..shipping on that 'C' box from Merrick (I think that is where he is) NY to my home in Reno, Nevada, was only 19 bucks.

I think Paul K. has an AC-3 that I will buy from him...I need it so I can sell an Early Drake '4' set....T-4x and R-4A. Besides...I trust Paul! The guy on eBay..don't know him from Adam.....

Joe - W7RKN

----- Original Message -----
From: "David Nichols hamcomm7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] AC-4 ON EBAY

> If you are biding on the one with the box, take a look at the shipping
> costs.
> David - KX7C
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: David Nichols <hamcomm7@yahoo.com>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

<mailto:w7rkn.7@...?subject=Re%3A%20AC-4%20ON%20EBAY> Reply to sender .
<mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20AC-4%20ON%20EBAY> Reply to group . <htt
ps://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21162;_ylc=X3oDMTJzM2pm
cGNxBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MgRzZWMDZG
1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21162> Reply via Web Post . <h
ttps://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21161;_ylc=X3oDMTM4NWwy
cDdsBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MgRzZWMDZG
1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTYx> All Messages (2) . Top ^

3a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21163;_ylc=X3oDMTJzcD
RwdG9kBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MwRzZWMD
ZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: B line wanted

Sat May 24, 2014 6:08 pm (PDT) . Posted by:

Greetings Bill, wb9cac, I am ready to purchase your b line as long as the face plates are not scratched and the lettering and finish is not worn or faded. I'm not too concerned about the ms4 appearance, that can be refinished. Are there any known issues past or present. Just to recap, b line with cables, ac4 with upgrade, ms4, & a d104 mic for $450.00 plus shipping. Sounds good to me. Still would like to see a few pics. Let me know when you can.
Thanks Bill, Dave. W6dst. "73",

Sent from my iPad

> On May 24, 2014, at 4:37 AM, "Bill Ellis wb9cac@yahoo.com [DrakeRadio]"
<DrakeRadio@yahoogroups.com> wrote:
>
> Dave,
>
> For the T-4XB, R4B, MS-4, AC4, I would like to get $450.00 plus shipping. I'll be back in town this afternoon and will send you some pictures of everything.
>

> 73's
>
> Bill Ellis, WB9CAC
>
> On Friday, May 23, 2014 3:48 PM, "David Stover gpastover@... [DrakeRadio]"
<DrakeRadio@...m> wrote:
>
>
>
> Hi bill, wb9cac, have you decided on a price for your b line. Let me know when you can.
I'm also looking at one other b line. Thanks bill , Dave stover. W6dst. "73".
>
> [Non-text portions of this message have been removed]
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<mailto:gpastover@...?subject=Re%3A%20B%20line%20wanted> Reply to sender .
<mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20B%20line%20wanted> Reply to group . <ht
tps://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21163;_ylc=X3oDMTJzYm1
pb3RlBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MwRzZWMDZ
G1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21163> Reply via Web Post . <
https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21112;_ylc=X3oDMTM4ZWh
1MGZpBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2MwRzZWMDZ
G1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTEy> All Messages (7) . Top ^

3b

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21164;_ylc=X3oDMTJzcz
lnYzc5BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NARzZWMD
ZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: B line wanted

Sat May 24, 2014 6:16 pm (PDT) . Posted by:

<mailto:vacuuminded2@...?subject=Re%3A%20B%20line%20wanted> vacuuminded2

Please complete your sale/private dealings off-list, guys..

C

Sent from my outdated iPhone wireless thingy

On May 24, 2014, at 8:08 PM, "gpastover@... [DrakeRadio]
<mailto:gpastover@...%20[DrakeRadio]> " <DrakeRadio@yahoogroups.com> wrote:

> Greetings Bill, wb9cac, I am ready to purchase your b line as long as the face plates are
not scratched and the lettering and finish is not worn or faded. I'm not too concerned
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> > Dave,
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<mailto:vacuuminded2@...?subject=Re%3A%20B%20line%20wanted> Reply to sender .
<mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20B%20line%20wanted> Reply to group . <ht
tps://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21164;_ylc=X3oDMTJzczZ
oOGlqBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NARzZWMDZ
G1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21164> Reply via Web Post . <
https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21112;_ylc=X3oDMTM4bmg
4NDVmBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NARzZWMDZ
G1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTEy> All Messages (7) . Top ^

4

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21165;_ylc=X3oDMTJzaj
c5MTloBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NQRzZWMD
ZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> T-4XB SUPPRESSOR REBUILD

Sat May 24, 2014 6:49 pm (PDT) . Posted by:

<mailto:hamcomm7@yahoo.com?subject=Re%3A%20T-4XB%20SUPPRESSOR%20REBUILD> "David Nichols" hamcomm7

HERE ARE A COUPLE OF PICTURES GAREY.
DAVID - KX7C

[Non-text portions of this message have been removed]

<mailto:hamcomm7@...?subject=Re%3A%20T-4XB%20SUPPRESSOR%20REBUILD> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20T-4XB%20SUPPRESSOR%20REBUILD> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21165;_ylc=X3oDMTJzczBxamozBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NQRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21165> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21165;_ylc=X3oDMTM4aTBpcXVhBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NQRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTY1> All Messages (1) . Top ^

5a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21166;_ylc=X3oDMTJzNnI2MzVuBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NgRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: TR4 resistance chart measurement V19 pin 2

Sat May 24, 2014 7:10 pm (PDT) . Posted by:

<mailto:ralph.gent@...?subject=Re%3A%20TR4%20resistance%20chart%20measurement%20V19%20pin%202> stockman_11743

Garey:

Agreed, the V2 area is the one of interest. I did a double take and this time around measured the voltages at the pins. Both pins 1 & 2 showed about 200VDC (definitely no good) and when tapping the chassis the voltages would disappear. As I look at the schematic the only way the grids would get that kind of voltage is via the V2 plate. So I installed another 12AV6 (third one) and this time around all seems to be working correctly; initially that is.

Tuning up in X-CW is right on; however, when the relay returns back to RX the audio almost sounds as if sideband was changed even though lower sideband is lit on 40. Engaging X-CW a few times and sometimes the audio sounds correct and off sideband the next time around; I get the same effect switching the sideband function. I don't have another 12AV6 so I'll send away for a few and hopefully they will turn out good.

Thanks for your help, I'll report back when I get another 12AV6.

Thanks,
Bruno KC2ESI

[Non-text portions of this message have been removed]

<mailto:ralph.gent@...?subject=Re%3A%20TR4%20resistance%20chart%20measurement%20V19%20pin%202> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20TR4%20resistance

%20chart%20measurement%20V19%20pin%202> Reply to group . <https://groups.yahoo.com/neo/gro
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zE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NgRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDA
xMDExMzIz?act=reply&messageNum=21166> Reply via Web Post . <https://groups.yahoo.com/neo/g
roups/DrakeRadio/conversations/topics/21139;_ylc=X3oDMTM4MXIyNzNhBF9TAzk3MzU5NzE1BGdycElkA
zE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NgRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDA
xMDExMzIzBHRwY0lkAzIxMTM5> All Messages (8) . Top ^

5b

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21167;_ylc=X3oDMTJzcm
JrajFrBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NwRzZWMD
ZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: TR4 resistance chart measurement V19 pin 2

Sat May 24, 2014 7:30 pm (PDT) . Posted by:

<mailto:k4oah@...?subject=Re%3A%20TR4%20resistance%20chart%20measurement%20V19%20pin%202>
"Garey Barrell" k4oah

Bruno -

OK. That 12AV6 isn't one of my favorite tubes... ! :-)

The Carrier Oscillator is shifted off frequency in CW by the small relay on the back wall
right
near the CAR OSC. Sounds like perhaps it isn't operating reliably. It's an interesting
circuit, the relay coil (12 VDC) is in series with the +150 VDC to the screen of V15. The
relay
is de-energized on SSB by shorting out the coil with switch contacts on the back side of
the
first wafer of the MODE switch. The switch is 'closed' (shorting out the relay coil) in CAL
and
SSB positions, and 'open' (causing the relay to close) and shift the CAR OSC about 1 kHz
up,
ONLY when the T-R relay is closed. Confusing, I know... Essentially the relay K2 (CAR OSC)
is
energized ONLY when CW or AM MODE is selected, AND relay K1 (T-R) relay is closed. When the
transmitter VOX releases, BOTH relays should de-energize.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

ralph.gent@... [DrakeRadio] wrote:
> Garey:
>
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>
> Thanks,
> Bruno KC2ESI
>

<mailto:k4oah@...?subject=Re%3A%20TR4%20resistance%20chart%20measurement%20V19%20pin%202> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20TR4%20resistance%20chart%20measurement%20V19%20pin%202> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21167;_ylc=X3oDMTJzMWY0Njk1BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NwRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21167> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21139;_ylc=X3oDMTM4MmRtczFsBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2NwRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTM5> All Messages (8) . Top ^

6a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21168;_ylc=X3oDMTJzMHFrNGFtBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2OARzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: TR4 or TR4c Relays Replaced

Sat May 24, 2014 8:09 pm (PDT) . Posted by:

<mailto:vk2sja@...?subject=Re%3A%20TR4%20%20or%20TR4c%20%20Relays%20%20Replaced> "Steve VK2SJA" vk2sja

Hi Garey,

Very interesting.

I just checked my TR-4C S/N 36805. V19 is a 6EV7 and the circuit diagram I'm using from your CD is called "TR-4C Schematic 35161" which shows 6EV7. This is the correct circuit to be looking at, Yes?

However my installed relay is a 48vdc with 2.5k ohm coil. Early on when I had trouble with relays pulling-in I bought a spare. It is also a newer 48v 2.5k ohm coil. Since the new relay did not "fix" the problem at the time I back swapped to the original unit that was installed.

However I've just checked and I do NOT have a 1.5k ohm 1 watt resistor in series with the coil as shown in the later circuit called "TR-4C Schematic 42500". This circuit gives this resistor designation R194. (Which just by the way, is missing from the version of your TR-4C service guide I have. But paradoxically, the same guide lists R143 as the newer 330K and not the older 680K. Anyway no biggie but I thought I'd mention it in passing).

So assuming I have correctly got my head around all this. My questions are:

What effect/symptom is caused by running the rig with the 2.5k coil with R194 missing? As it begins to look like the previous owner replaced the original relay but didn't know to install R194.

Next question. Where did Drake install R194. At the base of V19 or behind the the relay on the relay PCB?

73, Steve

> Frank -
>
> Late models of the TR-4C substituted a 6FQ7 when Drake was unable to get
> production quantities
> of 6EV7 tubes.
>
> The circuit is functionally equivalent, and the tubes are interchangeable.
> Where used, the
> original Varley relay with a 15k ohm coil, replacing it with the new P&B
> Tyco R10-E1-Y4-V2.5k
> (48 VDC) relay requires the installation of a 1.5k, 1W resistor in series
> with the coil. R143
> should also be checked, older versions had a 680k resistor, the 6FQ7 needs
> a 330k at R143. The
> 6FQ7 is unfortunately a choice of the audiophile crowd, so is usually
> considerably more
> expensive than the 6EV7. [Either tube will work with either relay]
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> Radio Vintage radiovintage2000@... [DrakeRadio] wrote:
>> Hi
>>
>> In some models of TR4c the relay controlled by the valve 6ev7 was
>> replaced with a normal relay to 48 volts and with another type of valve,
>> who can give me news about this change, thanks
>> Vintageradio Frank
>>
>>
>
>

<mailto:vk2sja@...?subject=Re%3A%20TR4%20%20or%20TR4c%20%20Relays%20%20Replaced> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20TR4%20%20or%20TR4c%20%20Relays%20%20Replaced> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21168;_ylc=X3oDMTJzczZsNjRuBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDM

TcwNTA2MzEwOARtc2dJZAMyMTE2OARzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21168> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21148;_ylc=X3oDMTM4OWtiazNlBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE2OARzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTQ4> All Messages (4) . Top ^

7a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21170;_ylc=X3oDMTJzNTJ0dHZnBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MARzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> Re: more tr7 questions

Sat May 24, 2014 9:22 pm (PDT) . Posted by:

<mailto:geoffreymendelson@...?subject=Re%3A%20more%20tr7%20questions> "geoffrey mendelson" gsmendelson

On 5/24/2014 9:39 PM, Garey Barrell k4oah@... [DrakeRadio] wrote:
>
>
> See
> <http://www.wb4hfn.com/DRAKE/DrakeArticles/TechTips/Homebrew_AUX-7.htm>
>
> and
>
> <http://www.wb4hfn.com/Services/W7AVK/tr7ext2.htm>
>
> No, Bob is not a member of this list...
>
Garey, Bob is the person I bought the extender boards from. I did see
his AUX-7 article, but do not have the eyesight, patience, nor skill to
build one.

I'll send him an email and ask.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

<mailto:geoffreymendelson@...?subject=Re%3A%20more%20tr7%20questions> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20more%20tr7%20questions> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21170;_ylc=X3oDMTJzdmN2N2EzBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MARzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21170> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/20472;_ylc=X3oDMTM4MmxhYXJ0BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MARzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIwNDcy> All Messages (17) . Top ^

8a

<https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21171;_ylc=X3oDMTJzamNwaGxjBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDAxMDExMzIz> T-4XC PTO Spring

Sat May 24, 2014 11:45 pm (PDT) . Posted by:

<mailto:pulsarxp@...?subject=Re%3A%20T-4XC%20PTO%20Spring> "L L bahr" pulsarair

I am in need of the long springs mounted on a C-line PTO for my T-4XC transmitter I recently acquired and am restoring. (Puts rear tension on the PTO shaft.) I've never needed one before, but it seems to me this was once covered as a topic and there was a source given. By chance was it maybe McMaster-Carr or maybe Small Parts? So head me in the right direction. Where can I obtain one?
Thanks,

Lee, w0vt

[Non-text portions of this message have been removed]

<mailto:pulsarxp@embarqmail.com?subject=Re%3A%20T-4XC%20PTO%20Spring> Reply to sender . <mailto:DrakeRadio@yahoogroups.com?subject=Re%3A%20T-4XC%20PTO%20Spring> Reply to group . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages/21171;_ylc=X3oDMTJzOXY3M3VoBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MQRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDAxMDExMzIz?act=reply&messageNum=21171> Reply via Web Post . <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/topics/21148;_ylc=X3oDMTM4MnNkazFsBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMyMTE3MQRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDAxMDExMzIzBHRwY0lkAzIxMTQ4> All Messages (4) . Top ^

<https://groups.yahoo.com/neo/groups/DrakeRadio/info;_ylc=X3oDMTJmZ2Z1dTVvBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE0MDEwMTEzMjM-> Visit Your Group

· <https://groups.yahoo.com/neo/groups/DrakeRadio/members/all;_ylc=X3oDMTJnazJyazRlBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNDAxMDExMzIz> New Members 7

· <https://groups.yahoo.com/neo/groups/DrakeRadio/photos/photostream;_ylc=X3oDMTJnaDVzMjd0BF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2cGhvdARzdGltZQMxNDAxMDExMzIz> New Photos 1

<https://groups.yahoo.com/neo;_ylc=X3oDMTJlbXA3YnBmBF9TAzk3MzU5NzE1BGdycElkAzE3OTg5NzkwBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTQwMTAxMTMyMw--> Yahoo! Groups

• <https://info.yahoo.com/privacy/us/yahoo/groups/details.html> Privacy • <mailto:DrakeRadio-unsubscribe@yahoogroups.com?subject=Unsubscribe> Unsubscribe • <https://info.yahoo.com/legal/us/yahoo/utos/terms/> Terms of Use

[Non-text portions of this message have been removed]

21173. Just wondering ---- tr4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 14:56:04 UTC
From: prosolar@...
Topic: 21173 Message: 21173

When I key the microphone, the s-meter on one of my tr4s moves along with the modulation. It's acting like the plate current meter.

I know the meters are known for going up scale, but I can't recall if they act like that.

anyone else notice this?

mike, wb8vge

[Non-text portions of this message have been removed]

21174. Re: [DrakeRadio] Just wondering ---- tr4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:05:02 UTC
From: Doug Coffman
Topic: 21173 Message: 21174

Mike,

Yes, all of mine do it. I believe it's indication of ALC action.

Doug - N9XTF

Sent from my iPhone

> On May 25, 2014, at 10:56, "prosolar@gmail.com [DrakeRadio]"
<DrakeRadio@yahoogroups.com> wrote:
>
> When I key the microphone, the s-meter on one of my tr4s moves along with the modulation.
It's acting like the plate current meter.
>
>
> I know the meters are known for going up scale, but I can't recall if they act like that.
>
>
> anyone else notice this?
>
>
> mike, wb8vge
>
> [Non-text portions of this message have been removed]
>
>

[Non-text portions of this message have been removed]

21175. File - Bi-Weekly Statement

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:07:15 UTC
From: DrakeRadio@yahoogroups.com
Topic: 206 Message: 21175

All group members are welcome to post on this message board, so for those that have questions please don't be shy and for those that have answers, please feel free to give advice to others. No one is 'keeping score' (I hope!)

PLEASE use the 'Reply All' function of your e-mail client so replies are posted to the list. A 'Reply' to the original poster ONLY, deprives the rest from seeing an answer, AND greatly diminishes the value of the List archives.

For those of you that have not introduced yourself we welcome you to do so and please feel free to upload your station pictures to the photos section of our group's home page, as well as links to Drake information or your homepage.

Just a word of advice for R-7 / TR-7 owners 'with a problem'. I estimate that 90% of 'failures' in these units are caused by minor oxidation of a switch, the card and/or cable connectors. Whether it's a problem that just shows up at turn-on, -OR-, after the unit has been unused for a while, DeoxIT'ing switches and just re-seating cards and connectors will often get it going again. If not, you know where we are!

73, Garey - K4OAH

21176. Re: [DrakeRadio] TR4 or TR4c Relays Replaced

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:15:02 UTC
From: Garey Barrell
Topic: 21148 Message: 21176

Hi Steve -

Yes, that would be the correct schematic for your radio.

A lot of people 'missed' the 1.5k resistor when the relays first started failing. I don't think
Drake even considered it for a while. Without it the 6EV7 (or 6FQ7) and relay are both overloaded. In the T-4X/B you can move the relay lead from Pin 1 to Pin 9, and then install the
resistor between Pins 9 and 1. Unfortunately, Drake 'used' Pin 9 in the TR-4C as a tie-point,
so it's not available.There is no 'good' place in the TR-4C. Unless you are running mobile, a
1W resistor lead is tough enough to just lift the relay wire from Pin 1 of the V19 socket, install the resistor, and reconnect the wire to the 'flying' lead of the resistor.

The parts list on the CD was for the s/n 38800 version of the radio, and the list reflects that. Since the photos are of the 38800, there is no R194 there either! I probably should add
R194 to the list and note 's/n 42500 version.

Without R194, the relay and tube are both overloaded, as described above.

R143 was changed before the tube was changed, and is to provide a bit more negative cutoff voltage to ensure that the relay drops out reliably.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Steve VK2SJA' vk2sja@... [DrakeRadio] wrote:
> Hi Garey,
>
> Very interesting.
>
> I just checked my TR-4C S/N 36805. V19 is a 6EV7 and the circuit diagram
> I'm using from your CD is called "TR-4C Schematic 35161" which shows 6EV7.
> This is the correct circuit to be looking at, Yes?
>
> However my installed relay is a 48vdc with 2.5k ohm coil. Early on when I
> had trouble with relays pulling-in I bought a spare. It is also a newer
> 48v 2.5k ohm coil. Since the new relay did not "fix" the problem at the
> time I back swapped to the original unit that was installed.
>

> However I've just checked and I do NOT have a 1.5k ohm 1 watt resistor in
> series with the coil as shown in the later circuit called "TR-4C Schematic
> 42500". This circuit gives this resistor designation R194. (Which just by
> the way, is missing from the version of your TR-4C service guide I have.
> But paradoxically, the same guide lists R143 as the newer 330K and not the
> older 680K. Anyway no biggie but I thought I'd mention it in passing).
>
> So assuming I have correctly got my head around all this. My questions are:
>
> What effect/symptom is caused by running the rig with the 2.5k coil with
> R194 missing? As it begins to look like the previous owner replaced the
> original relay but didn't know to install R194.
>
> Next question. Where did Drake install R194. At the base of V19 or behind
> the the relay on the relay PCB?
>
> 73, Steve
>
>
>
>
>> Frank -
>>
>> Late models of the TR-4C substituted a 6FQ7 when Drake was unable to get
>> production quantities
>> of 6EV7 tubes.
>>
>> The circuit is functionally equivalent, and the tubes are interchangeable.
>> Where used, the
>> original Varley relay with a 15k ohm coil, replacing it with the new P&B
>> Tyco R10-E1-Y4-V2.5k
>> (48 VDC) relay requires the installation of a 1.5k, 1W resistor in series
>> with the coil. R143
>> should also be checked, older versions had a 680k resistor, the 6FQ7 needs
>> a 330k at R143. The
>> 6FQ7 is unfortunately a choice of the audiophile crowd, so is usually
>> considerably more
>> expensive than the 6EV7. [Either tube will work with either relay]
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Radio Vintage radiovintage2000@... [DrakeRadio] wrote:
>>> Hi
>>>
>>> In some models of TR4c the relay controlled by the valve 6ev7 was

>>> replaced with a normal relay to 48 volts and with another type of valve,
>>> who can give me news about this change, thanks
>>> Vintageradio Frank
>>>
>>>
>>

21177. Re: [DrakeRadio] Just wondering ---- tr4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:27:17 UTC
From: Garey Barrell
Topic: 21173 Message: 21177

Yes, that's the ALC indicator. It will read up-scale by 'some' not critical amount. IF it 'wiggles', it means the ALC is limiting the power. For the cleanest signal it's best that it
NOT wiggle. Increase MIC GAIN until it just wiggles, the back off just until it steadies or stops wiggling.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

prosolar@... [DrakeRadio] wrote:
> When I key the microphone, the s-meter on one of my tr4s moves along with the modulation. It's acting like the plate current meter.
>
>
> I know the meters are known for going up scale, but I can't recall if they act like that.
>
>
>

21178. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:47:01 UTC
From: Garey Barrell
Topic: 21152 Message: 21178

David -

Have you tried neutralizing on 15 or even 20M first?? The resonance is considerably wider there, and so easier to spot. Then can be refined on 10M when you're 'close'. You could also
use the 'PA Screen voltage removed/receiver or scope on the ANT output/tune neut cap for minimum' method!

The resistors shouldn't affect the parasitic suppressors. The coil around them though is fairly
critical. These are normally 'tuned' to resonate broadly at the frequency where the amplifier
tends to be unstable. This frequency is different for each amplifier configuration and depends
upon physical layout, lead lengths, etc., that cause the instability. I wouldn't think they would affect neutralization much if at all. Are the new coils essentially the same number of
turns, diameter and length??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok now, Garey, I changed the tubes out but when I couldnt neutralize them I changed those out.
> Now I cant find a sweet spot to neutralize these either. The voltage on the resistors looks good with these but its like the neutralizing cap isnt doing anything.
>
> Am I going to have to change the suppressor resistors back to carbon?
> I have a pair so I can do that, it was working before I changed those.
> Ill see tomorrow, Im getting tired out tonight.
> David - KX7C
>
>
>
>
> Alright Garey,
> I went to change the tubes because there wasnt any difference. The suppressor came off in my hand so I am making some new ones. I have another fresh set of Sylvanias on the way and am hoping they are as good as advertised. I do have another set I can use for now. When I get it back together I will get on with what I was doing. I am using some ceramic comps to put the coil on they are smaller in diameter but equal in length so there will be a little

gap between the resistor and the coil. Ive seen some of them be just loops so Im thinking this wont matter.
> David - KX7C
>
>
>
>
> Ill read this again to make sure I follow what you are saying.
> I was just able to neutralize the tubes so I will check the readings again.
> I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.
>
>
> David -
>
> OK, we were all where you are once upon a time! :-)
>
> Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
> indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across
> either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
> is passing 33 mA of idle current, and V5 is only passing 27 mA for a total of 60 mA. You need
> to select a new R38 value that will make the meter read 60 mA, then re-adjust the BIAS for 70
> mA. Since the tubes aren't matched, one is handling 21.6W and the other is 17.6W for a total of
> 39.2W than the 45.5W, equally shared that it should be. This is not all that important right
> now, but should be fixed if you want it RIGHT! :-)
>
> I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
> so not really all that important.
>
> Your 220 mA is 144W input, which should give you about 79W output, right where I'd expect.
> That's good, although low. Perfect would be .340 on the PLATE meter, for 220W input, and about
> 122W output. You could load for more, but those are the design values.
>
> A new pair of PA tubes, and a new R38 and you should be right on the mark!! Good work!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>

>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> Ok Garey,
>> I got things mixed up on the upside down rig. I thought I was on 40m and I had the switch on 80m.
>> I was looking for it to tune up on 40 and things was not looking right. Now that I have that figured out it looks a lot better. Thank goodness! I think I have messed it up enough already.
>>
>> That said, I did install a pair of 6JB6's, ok tubes. Not new but fairly well matched and good.
>> I replaced the blown resistors R32/33 with a matched pair of Ohmite Ceramic Comp. 15 ohm @ 10% 1watt. I got six so I could pick the closest ones to use.
>>
>> I replaced R36 with KOA Speer Metal Oxide 3.3 ohm 1/2 watt @ 5%.
>>
>> 1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.
>>
>> 2. Idle current is setup and looking good. The voltage across the resistors is different. R33 on V6 measures about .5+ the digital meter is fluctuating and did not settle down. R32 on V5 is lower at .4.
>> 3. Dummy load is good its the dummy running it I wonder about. hi hi
>> 4. Load looks better now, on 40 meters @ 3.5 and the Plate is @ 7.
>> 5 Plate meter is reading .22.
>> Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
>> I think I keep thinking its an 80 to 10 meter rig and I disregard the fact this one has 160 in it.
>>
>>
>> Yep, that'll do it!!! :-)
>>
>> Need a little more information..... C61 is NOT a 'likely' culprit.
>>
>> 1. Are both PA tubes 'lit'?
>>
>> 2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
>> each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.
>>
>> 3. Is your dummy load / antenna / coax good?? Low SWR?
>>
>> 4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.
>>
>> 5. What does the PLATE meter read when 'dipped' at MAX output?
>>
>> This will give us a start!!
>>
>> 73, Garey - K4OAH

>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols hamcomm7@... [DrakeRadio] wrote:
>>> Hi Garey,
>>> I have confirmed the fact that my T-4XB did not have the negative voltage to the finals when the resistors blew.
>>> I have replaced the resistors and repaired the problem with the bias voltage. I have attempted to tune up and I dont like what it is doing. I believe something else must be awry. When I get it to max power the Plate tune is at 3 o'clock and it should not be. I feel some capacitance must now be missing. What are the chances on C61 being bad? I will check but I thought you might get me to the spot I need to look. Those road maps called schematics confuse me sometimes. Is there another tube that might have bit the dust? The good thing is I didnt get anymore fireworks when I turned it on.
>>>
>>> David - KX7C
>>>
>>>

21179. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 15:56:10 UTC
From: David Stinson
Topic: 20472 Message: 21179

Thanks for this, John.

----- Original Message -----
From: "John Magliacane kd2bd@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 23, 2014 3:17 PM
Subject: Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

> > About a third of the way down this page:
> >
> > http://theradioboard.com/rb/viewtopic.php?f=10&t=5260&start=15
> >
> > is a diagram for the Palomar LA-1 ferrite loop antenna.
>

Here are a couple of thoughts after looking at the schematic:

The transistors appear to be drawn from the TOP view. This would
place the Gate on the left side, connected to the coil, where it
belongs.

I don't feel the connection shown between the transistor's center
pin (Source) and the junction between the two 4.7k resistors is
correct. It would elevate the sources of both FETs to +9v and
bias them OFF. I would eliminate it.

> 1. How many turns of what wire does one need to put on the
> loop?

That depends on a number of things, such as the permeability of
the ferrite, the frequency of interest, etc. The bottom line is
you need enough inductance to establish resonance at your
frequency of interest with the range of capacitance values
provided by the tuning cap.

> 2. It looks like the coils are shorter than half of the rod,
> and wound at each end, instead of one coil either spread out
> along the length, or in the center.

Ferrite rods work best in these applications when the length of
the coil is made small with respect to the total length of the
rod.

> 3. I have more than twice as many J310's as MPF102, would they
> work?

MPF102 have become obsolete. J310s are much better devices. You may need to decrease the value of the 1k resistor shown the schematic, as 1K may be too high for the J310s.

Finally, you don't need to use a ferrite loaded coil to build an effective H-Field probe antenna for use on LF frequencies. I typically use air-core coils wound from multi-conductor ribbon cable. These coils are typically several feet in diameter, and are hung from some kind of non-metallic support structure. I have found no need to electrostatically shield these coils, because I typically terminate them in high-Z balanced, differential amplifiers, similar to the Palomar unit referenced above.

And on much lower frequencies (60 kHz and below), I use an instrumentation amplifier, like an Analog Devices AD620, to buffer and amplify the output of the coil.

73, de John, KD2BD

--
Visit John on the Web at:
http://www.qsl.net/kd2bd/

21180. Re: [DrakeRadio] Re: LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 16:04:33 UTC
From: David Stinson
Topic: 20472 Message: 21180

> H-Field antennas like the Ferrite loops seem to me
> to be much less bothered by local terrain.
> And the ability to "steer" them to cancel noise will
> pull many signals out that are completely buried
> in the noise from an E-Field Probe.
>
> About a third of the way down this page:
>
> http://theradioboard.com/rb/viewtopic.php?f=10&t=5260&start=15
>
> is a diagram for the Palomar LA-1 ferrite loop antenna.
> It's a simple device but it works very well.

John is likely right. I found this diagram with Google,
but it appears to be drawn in error.
The + supply goes to ground via a diode drop and 1 KOhm.
That can't be right.
Anyone have the correct diagram?
Dave S.

21181. Re: [DrakeRadio] Re: LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 17:38:31 UTC
From: Garey Barrell
Topic: 20472 Message: 21181

Dave -

I think that part of the schematic is ok. That 'diode drop' and 1.5k resistor to ground is an
LED for power indication and would be correct.

John seems to be right on the FETs, this would be looking down on top of the device and the leads out of the bottom, Gate, Source and Drain.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'David Stinson' arc5@... [DrakeRadio] wrote:
>
>> H-Field antennas like the Ferrite loops seem to me
>> to be much less bothered by local terrain.
>> And the ability to "steer" them to cancel noise will
>> pull many signals out that are completely buried
>> in the noise from an E-Field Probe.
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>> is a diagram for the Palomar LA-1 ferrite loop antenna.
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> John is likely right. I found this diagram with Google,
> but it appears to be drawn in error.
> The + supply goes to ground via a diode drop and 1 KOhm.
> That can't be right.
> Anyone have the correct diagram?
> Dave S.
>
>

21182. Re: [DrakeRadio] TR4 resistance chart measurement V19 pin 2

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 18:05:13 UTC
From: ralph.gent@...
Topic: 21139 Message: 21182

Hi Garey:

I located another 12AV6; cleaned up the K2 relay contacts and gave the wafer switches another cleaning with DeOxit. All appears to be working as advertised.

I am without an antenna since Hurricane Sandy so I plan of dropping the rig of at my a friends QTH. He will run it through the bands and hopefully get good copy without any problems.

Thanks for the help.

Bruno KC2ESI

[Non-text portions of this message have been removed]

21183. Off topic: HELP - filter needed!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 18:32:24 UTC
From: OH6NT
Topic: 21183 Message: 21183

Hi group. This does not belong here so I apologize in advance, but I don't know where to turn for help!

I have a FT-2000 + DMU and now my band scope has stopped working. It seems impossible to locate the needed spare part, a ceramic filter TOKO ALFYM455H=K, Yaesu part# H3900542. I have tried the most obvious, the local Yaesu delaer, and Yaesu (UK) to no av ail.

So, since the radio is almost vintage ;-) I decided to ask if anyone heler can supply such a filter, or help me get hold of one. Possible answers can be mailed to oh6nt@....

Sorry for the inconvenience!
/Tom

--
Vy 73 de OH6NT
It's good to be green - get a Heathkit!

21184. Re: [DrakeRadio] Just wondering ---- tr4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 19:10:27 UTC
From: Mike
Topic: 21173 Message: 21184

Well I'll be.

Of all the drake radios I have that is the first time I heard if that. Learn something new all the time.

Mike wb8vge

Sent from my iPhone

> On May 25, 2014, at 11:05 AM, "Doug Coffman dj_coffman@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> Mike,
>
> Yes, all of mine do it. I believe it's indication of ALC action.
>
> Doug - N9XTF
>
> Sent from my
>
> .
>
>
>

[Non-text portions of this message have been removed]

21185. Re: [DrakeRadio] Off topic: HELP - filter needed!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 19:58:27 UTC
From: Paul Kraemer
Topic: 21183 Message: 21185

Tom
When I plugged that Toko number into Google I see lots of possibilities
Try that
Paul K0UYA

From: "OH6NT oatpower@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Sent: Sunday, May 25, 2014 1:32 PM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] Off topic: HELP - filter needed!

> Hi group. This does not belong here so I apologize in advance, but I
> don't know where to turn for help!
>
> I have a FT-2000 + DMU and now my band scope has stopped working. It
> seems impossible to locate the needed spare part, a ceramic filter
> TOKO ALFYM455H=K, Yaesu part# H3900542. I have tried the most obvious,
> the local Yaesu delaer, and Yaesu (UK) to no av ail.
>
> So, since the radio is almost vintage ;-) I decided to ask if anyone
> heler can supply such a filter, or help me get hold of one. Possible
> answers can be mailed to oh6nt@....
>
> Sorry for the inconvenience!
> /Tom
>
> --
> Vy 73 de OH6NT
> It's good to be green - get a Heathkit!
>
>
>
> ------------------------------------
> Posted by: OH6NT <oatpower@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

21186. TR7 Extender Boards

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-25 22:18:43 UTC
From: Don Cunningham
Topic: 20472 Message: 21186

Geoff,
If you haven't found any extender boards, get in touch with me off the reflector. For some reason, I cannot send you an email directly. I have a spare set of Bob's extender cards I have not ever used and have recently gotten a set of original Drake ones and Bob's set is available for another user. I also have some original service manuals I will sell if you are interested in one.
73,
Don, WB5HAK
On 5/24/2014 1:22 PM, geoffrey mendelson geoffreymendelson@...
[DrakeRadio] wrote:
>
>
> John, thanks,
> >
> > Here are a couple of thoughts after looking at the schematic:
> >
> > The transistors appear to be drawn from the TOP view. This would place
> > the Gate on the left side, connected to the coil, where it belongs.
> >
> Ok, important to know. I was planing on checking the connections before
> I connected that, but we all know how well that works. :-)
>
> > I don't feel the connection shown between the transistor's center pin
> > (Source) and the junction between the two 4.7k resistors is correct.
> > It would elevate the sources of both FETs to +9v and bias them OFF. I
> > would eliminate it.
> >
>
> Ok, thanks, easy enough to do.
> >
> >
> > > 1. How many turns of what wire does one need to put on the loop?
> >
> > That depends on a number of things, such as the permeability of the
> > ferrite, the frequency of interest, etc. The bottom line is you need
> > enough inductance to establish resonance at your frequency of interest
> > with the range of capacitance values provided by the tuning cap.
> >
> > > 2. It looks like the coils are shorter than half of the rod,
> > > and wound at each end, instead of one coil either spread out
> > > along the length, or in the center.
> >
> > Ferrite rods work best in these applications when the length of the
> > coil is made small with respect to the total length of the rod.

> >
>
> That was a lot of fun. I did more research and found out a lot I did not
> know. The LA-1 is the box, not the loop. The loops are separate. They
> plug into a stereo type plug (1/4 inch?) on the top, hence the T(tip), S
> (sleeve), R (ring) on the drawing.
>
> I found that Universal Radio had the specs for the loops on their web
> page for the LA-1, and using a resonant frequency calculator could
> figure out the inductance needed. I have a Chinese inductance meter, one
> of the little ones with no manual, but I guess I can get it to do what I
> needed when I wind the loops.
>
> Using the spec of a capacitor that goes from 25-875 PF (wow!!!), I took
> the lower frequency, reduced it by 10% and figured out what the
> inductance should be, when I calculated the high end using the
> inductance I calculated and the lowest value of the capacitor, I found
> that it had a lot more range than listed.
>
> The loops are: (official frequency range)
> OMEGA: (10-40kHz) 376mh.
> WWVB: (40-150kHz) 27mh.
> BCB: (550-1600kHz) 120 uh.
> 160m/80m: (1700-6000kHz) 12 uh.
> HF-1: (5000-16000Hz) 1.47uh
> mh are milihenrys, uh are microhenrys.
>
> The 160/80 and HF-1 loops are wire loops with no ferrite in them. They
> came in plastic tubing made into a square, with only azimuth adjustment.
> The other loops are wound on ferrite rods, and have both elevation and
> azimuth adjustments.
>
> For my purposes, I figured that I could just build the loops I wanted,
> without the elevation feature. Since I don't have a variable capacitor
> (but all the other parts including the ferrite rods), I could just get a
> cheap 15-365PF capacitor similar to the ones used in crystal radios.
> Since Universal Radio sold an LA-1 with HF loop for under $100 in
> Februrary, it seemed foolish to me to duplicate it if the parts cost
> close to that price.
>
> With a 365PF capacitor, I found I could use: The second frequency is the
> top calculated resonance with a 15PF capacitor. I doubt it would really
> go that high, and with the HF loop have any gain.
>
> LF: 3.08mh. 750kHz.
> BCB: 2.83 uh. 2400kHz
> 160/180: 29uh. 7600kHz
> HF: 3uh. 23mHz.
>
> >

> > > 3. I have more than twice as many J310's as MPF102, would they work?
> >
> > MPF102 have become obsolete. J310s are much better devices. You may
> > need to decrease the value of the 1k resistor shown the schematic, as
> > 1K may be too high for the J310s.
> >
>
> Any idea of what to use? Or a pointer to what to reduce/increase in
> order to get them to work properly?
>
> >
> > Finally, you don't need to use a ferrite loaded coil to build an
> > effective H-Field probe antenna for use on LF frequencies. I typically
> > use air-core coils wound from multi-conductor ribbon cable. These
> > coils are typically several feet in diameter, and are hung from some
> > kind of non-metallic support structure. I have found no need to
> > electrostatically shield these coils, because I typically terminate
> > them in high-Z balanced, differential amplifiers, similar to the
> > Palomar unit referenced above.
> >
>
> Ok, I have the ferrite rods, so I might as well use them. :-)
>
> >
> > And on much lower frequencies (60 kHz and below), I use an
> > instrumentation amplifier, like an Analog Devices AD620, to buffer and
> > amplify the output of the coil.
> >
> Not much chance of my ever seeing one of those, or even if I had one
> receiving anything on the lower frequencies. From other's experience I
> am well outside the range of both WWVB and the 50kHz EU stations.
>
> And to keep it the least little bit on topic, am I correct in assuming
> that if I were to build a single, not split loop to those specs, and
> plugged it into the loop socket of the SPR-4, it would work?
>
> Thanks and 73.
>
> Geoff.
>
> --
> Geoffrey S. Mendelson 4X1GM/N3OWJ
> Jerusalem Israel.
>
> [Non-text portions of this message have been removed]
>
>

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[Non-text portions of this message have been removed]

21187. DXing with my "new" 4 Line

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 02:25:03 UTC
From: rochep@...
Topic: 21187 Message: 21187

I have been having so much fun playing with my R4A/T4XB that I decided to use them in the WPX CW contest this weekend to try to boost my "Drake" DXCC total up from 70 worked (not bothering with confirmations). I USUALLY use either a Kenwood TS-850S or TS-590S and 400 watt amp.

What a PAIN to search and pounce with separate RX/TX, I was spoiled by the transceiver!! (Still cannot use the Drakes in transceive mode, I can not get used to listening with >1 kc offset instead of the 400 Hz I prefer). I would call a LOUD station that I found on the R4A over and over and over only to realize my TX was not ALSO tuned to that frequency. DOH!! Collateral damage of contesting, I guess. But I managed to work a total of 68 DXCC countries, so my "Drake DXCC" total is now 112. And I worked 35 zones, only missing 2, 27, 34, 36, 37, and 38 for my "Drake WAZ".

In crowded loud band conditions the 400 Hz LC filter just doesn't cut it like the crystal filters on my big rigs. I might buy an external audio filter to help out. Overall pleased I could work new ones, but a really rough way to make 150 QSOs. (I sent all CW by hand, but logged with the computer. That make things more difficult a BIT, but at least I did not have to keep a paper dupe sheet like in the old days).

paul

[Non-text portions of this message have been removed]

21188. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 04:07:19 UTC
From: David Nichols
Topic: 21152 Message: 21188

Well Garey,
I did it again, when I was cutting the old suppressor out I also clipped the wire going down to the neutralizing cap off of the lug to V6. No wonder the cap didnt work. Thats what I thought, but I still dont have it. Still checking to see what else I might have messed up.

David - KX7C.

From: "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, May 25, 2014 8:47 AM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

Have you tried neutralizing on 15 or even 20M first?? The resonance is considerably wider there, and so easier to spot. Then can be refined on 10M when you're 'close'. You could also
use the 'PA Screen voltage removed/receiver or scope on the ANT output/tune neut cap for minimum' method!

The resistors shouldn't affect the parasitic suppressors. The coil around them though is fairly
critical. These are normally 'tuned' to resonate broadly at the frequency where the amplifier
tends to be unstable. This frequency is different for each amplifier configuration and depends
upon physical layout, lead lengths, etc., that cause the instability. I wouldn't think they would affect neutralization much if at all. Are the new coils essentially the same number of
turns, diameter and length??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok now, Garey, I changed the tubes out but when I couldnt neutralize them I changed those out.
> Now I cant find a sweet spot to neutralize these either. The voltage on the resistors looks good with these but its like the neutralizing cap isnt doing anything.
>
> Am I going to have to change the suppressor resistors back to carbon?

> I have a pair so I can do that, it was working before I changed those.
> Ill see tomorrow, Im getting tired out tonight.
> David - KX7C
>
>
>
>
> Alright Garey,
> I went to change the tubes because there wasnt any difference. The suppressor came off in my hand so I am making some new ones. I have another fresh set of Sylvanias on the way and am hoping they are as good as advertised. I do have another set I can use for now. When I get it back together I will get on with what I was doing. I am using some ceramic comps to put the coil on they are smaller in diameter but equal in length so there will be a little gap between the resistor and the coil. Ive seen some of them be just loops so Im thinking this wont matter.
> David - KX7C
>
>
>
>
> Ill read this again to make sure I follow what you are saying.
> I was just able to neutralize the tubes so I will check the readings again.
> I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.
>
>
> David -
>
> OK, we were all where you are once upon a time! :-)
>
> Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
> indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across
> either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
> is passing 33 mA of idle current, and V5 is only passing 27 mA for a total of 60 mA. You need
> to select a new R38 value that will make the meter read 60 mA, then re-adjust the BIAS for 70
> mA. Since the tubes aren't matched, one is handling 21.6W and the other is 17.6W for a total of
> 39.2W than the 45.5W, equally shared that it should be. This is not all that important right
> now, but should be fixed if you want it RIGHT! :-)
>
> I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
> so not really all that important.
>

> Your 220 mA is 144W input, which should give you about 79W output, right where I'd expect.
> That's good, although low. Perfect would be .340 on the PLATE meter, for 220W input, and about
> 122W output. You could load for more, but those are the design values.
>
> A new pair of PA tubes, and a new R38 and you should be right on the mark!! Good work!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> Ok Garey,
>> I got things mixed up on the upside down rig. I thought I was on 40m and I had the switch on 80m.
>> I was looking for it to tune up on 40 and things was not looking right. Now that I have that figured out it looks a lot better. Thank goodness! I think I have messed it up enough already.
>>
>> That said, I did install a pair of 6JB6's, ok tubes. Not new but fairly well matched and good.
>> I replaced the blown resistors R32/33 with a matched pair of Ohmite Ceramic Comp. 15 ohm @ 10% 1watt. I got six so I could pick the closest ones to use.
>>
>> I replaced R36 with KOA Speer Metal Oxide 3.3 ohm 1/2 watt @ 5%.
>>
>> 1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.
>>
>> 2. Idle current is setup and looking good. The voltage across the resistors is different. R33 on V6 measures about .5+ the digital meter is fluctuating and did not settle down. R32 on V5 is lower at .4.
>> 3. Dummy load is good its the dummy running it I wonder about. hi hi
>> 4. Load looks better now, on 40 meters @ 3.5 and the Plate is @ 7.
>> 5 Plate meter is reading .22.
>> Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
>> I think I keep thinking its an 80 to 10 meter rig and I disregard the fact this one has 160 in it.
>>
>>
>> Yep, that'll do it!!! :-)
>>
>> Need a little more information..... C61 is NOT a 'likely' culprit.
>>
>> 1. Are both PA tubes 'lit'?

>>
>> 2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
>> each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.
>>
>> 3. Is your dummy load / antenna / coax good?? Low SWR?
>>
>> 4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.
>>
>> 5. What does the PLATE meter read when 'dipped' at MAX output?
>>
>> This will give us a start!!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols hamcomm7@... [DrakeRadio] wrote:
>>> Hi Garey,
>>> I have confirmed the fact that my T-4XB did not have the negative voltage to the finals when the resistors blew.
>>> I have replaced the resistors and repaired the problem with the bias voltage. I have attempted to tune up and I dont like what it is doing. I believe something else must be awry. When I get it to max power the Plate tune is at 3 o'clock and it should not be. I feel some capacitance must now be missing. What are the chances on C61 being bad? I will check but I thought you might get me to the spot I need to look. Those road maps called schematics confuse me sometimes. Is there another tube that might have bit the dust? The good thing is I didnt get anymore fireworks when I turned it on.
>>>
>>> David - KX7C
>>>
>>>

[Non-text portions of this message have been removed]

21189. TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 05:11:57 UTC
From: k5eh
Topic: 21189 Message: 21189

My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
checks note no cathode voltage on pin 2 of V2. Could this be the
problem? Comments?
Thanks, Jim, K5EH

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21190. Re: TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 13:09:32 UTC
From: w5rkl@...
Topic: 21189 Message: 21190

Have you checked for receive audio at the RCVR GAIN pot center terminal?
Have you also checked for receive audio at the grid (pin 1/7) of V17 (6AQ5)?

A scope set to measure AC connected to the 2 points mentioned above will show whether there is audio present or not.

If there is receive audio at the center terminal of the RCVR GAIN pot but no receive audio at the grid (pin 1/7) of V17 (6AQ5) then I suspect Q5 (2N3877) has failed. If Q5 fails then V17 will not produce any audio output at the speaker or headphones and the S meter will not function in receive.

The S Meter circuit uses the plate of V17, 6AQ5 audio output tube, as part of the S meter "Bridge" circuit (See the S meter function in the TR4's manual page 4-2).

Check the voltages at the Base, Emitter, and Collector of Q5 and compare them to the manual's voltage chart on page 5-5.

If V2, 6AV6, is weak or bad then the CW side tone and AM audio preamp circuit will be affected. I would replace V2 if it appears to be weak or bad.

73
Mike W5RKL

[Non-text portions of this message have been removed]

21191. Re: TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 14:27:10 UTC
From: w5rkl@...
Topic: 21189 Message: 21191

Jim,

I may have mis-spoke about Q5.

What model of TR4 do you have?

If your TR4 is not a TR4C then Q5 is not used.

73
Mike W5RKL

[Non-text portions of this message have been removed]

21192. Re: [DrakeRadio] Re: TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 15:14:49 UTC
From: jim lewis
Topic: 21189 Message: 21192

Mike,
Thanks for the reply. I have an older TR-4, s/n 19360, c. 1966; no Q5, but I'm on trail of 6AQ5 input sigs and voltages.

73, Jim K5EH
----- Original Message -----
From: w5rkl@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Monday, May 26, 2014 9:27 AM
Subject: [DrakeRadio] Re: TR-4 RCVR PROBLEM

Jim,

I may have mis-spoke about Q5.

What model of TR4 do you have?

If your TR4 is not a TR4C then Q5 is not used.

73
Mike W5RKL

[Non-text portions of this message have been removed]

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[Non-text portions of this message have been removed]

21193. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 15:41:03 UTC
From: Richard Knoppow
Topic: 21189 Message: 21193

----- Original Message -----
From: "k5eh k5eh@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <drakeradio@yahoogroups.com>
Sent: Sunday, May 25, 2014 10:11 PM
Subject: [DrakeRadio] TR-4 RCVR PROBLEM

> My TR-4, s/n 19360, gave up the ghost. Was working fb.
> Now, no rcvr
> audio nor signal indications. Xmtr working fb. tcvr/rcvr
> sw in tvcr pos.
> Tube ck ok on cker, with exception of V2, 12AV6.Also,
> doing voltage
> checks note no cathode voltage on pin 2 of V2. Could this
> be the
> problem? Comments?
> Thanks, Jim, K5EH

V-2 is the side tone oscillator. The cathode goes to
S-2 and is open in some positions. Other than the
Receive-Tranceive switch being in the wrong position the
most common cause of the receiver going dead is the "fuse
lamp" in the antenna. They can open or have corroded
contacts. I would check that, if you have not already,
before getting too deeply into other stuff.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21194. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 16:23:18 UTC
From: Garey Barrell
Topic: 21189 Message: 21194

Jim -

V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k5eh k5eh@... [DrakeRadio] wrote:
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> checks note no cathode voltage on pin 2 of V2. Could this be the
> problem? Comments?
> Thanks, Jim, K5EH
>

21195. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 19:11:41 UTC
From: jim lewis
Topic: 21189 Message: 21195

Thanks Richard for reply. The fuse lamp was one of the first things I cked. It cks good. on to other cks.

Jim, K5EH
----- Original Message -----
From: 'Richard Knoppow' 1oldlens1@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Monday, May 26, 2014 10:41 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

----- Original Message -----
From: "k5eh k5eh@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <drakeradio@yahoogroups.com>
Sent: Sunday, May 25, 2014 10:11 PM
Subject: [DrakeRadio] TR-4 RCVR PROBLEM

> My TR-4, s/n 19360, gave up the ghost. Was working fb.
> Now, no rcvr
> audio nor signal indications. Xmtr working fb. tcvr/rcvr
> sw in tvcr pos.
> Tube ck ok on cker, with exception of V2, 12AV6.Also,
> doing voltage
> checks note no cathode voltage on pin 2 of V2. Could this
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> problem? Comments?
> Thanks, Jim, K5EH

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S-2 and is open in some positions. Other than the
Receive-Tranceive switch being in the wrong position the
most common cause of the receiver going dead is the "fuse
lamp" in the antenna. They can open or have corroded
contacts. I would check that, if you have not already,
before getting too deeply into other stuff.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

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[Non-text portions of this message have been removed]

21196. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 19:15:40 UTC
From: jim lewis
Topic: 21189 Message: 21196

Garey,
Thanks for input. Am about to start voltage cks on V17. Will report findings.
JIm, K5EH
----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Monday, May 26, 2014 11:23 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

k5eh k5eh@... [DrakeRadio] wrote:
> My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> checks note no cathode voltage on pin 2 of V2. Could this be the
> problem? Comments?
> Thanks, Jim, K5EH
>

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http://www.avast.com

[Non-text portions of this message have been removed]

21197. Not quite a Drake question :-)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 20:37:15 UTC
From: Mark Pilant
Topic: 21197 Message: 21197

Hi Garey.

I recently acquired a Collins S-line (32S-1, 75S-1, 516F-2)
and have started to clean them up. I'm doing the 75S-1 first;
for no particular reason :-)

Anyway, it appears to have a number of modifications and I was
wondering if you knew of anyone who had something line your Drake
CD for the Collins line? (BTW, I have found your CD invaluable.)
It would sure help to determine what is stock and what isn't.

Thanks in advance.

73

- Mark N1VQW

21198. Basket Case Drake T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 20:40:27 UTC
From: L L bahr
Topic: 21198 Message: 21198

I've been working on my basket case T-4XC. So far:
1. Cleaned the thing from top to bottom. It was really dirty but looks pretty good now. (I used Q tips and alcohol. A lot of Q tips!)
2. R epainted the meter bracket and dial hood white. Then re-installed the meter.
3. Cleaned and lubed all the pots
4. Checked the relay. (Its the old 15k Tyco one that has a habit of going bad. It's OK.)
5. Cleaned and lubed the adjustable coil rack mechanism.
6. Checked all the tubes and replaced three of them. (One was gas sey, another was wrong tube, and third one was weak. Not sure about the finals yet.)
7.   Found a replacement main tuning knob as original was missing.
8. Found a replacement meter lamp holder as original was missing.
8. Dug out a replacement top cover as original is badly dented.
9. Found a source for the L1 board because L1 which feeds 650 volts to the final plate choke is burned up. It's a 750uH three pi choke good for 300 ma. per Garey, K4OAH.
10. The PTO is a disaster. I need to totally rebuild it. The spring is missing as well as 5 ball bearings and the gears need shims to align it. McMaster-C arr can supply me with a new spring and I think I can buy the ball bearings there too but I need to buy 500 of them! Most likely I'll have to sand some plastic to get rid of some binding. One good thing, the clear plastic dials look good.
11. The front panel really cleaned up nicely.
12. I cleaned and re-whitened the knob hash marks. They look good as well.
13. The can electrolytic has leaked slightly so I need to replace it, but I would have done that anyway.
14. I spray pai nted the top of the stacked filters with aluminum paint as it really improved the appearance of the radio.
15. When I'm ready to fire it up, I'll install BLUE LED lamps as I have been using them on other Drake gear.
16. When I get everything put back together I'll have to trouble shoot any difficulties and do a complete alignment.
I've really taken a good hard look at the transmitter and everything else appears OK. I' won't know until I fire it up if it has any more maladies. O ther then that, she is a real cream puff! T he project has been a lot of fun so far. I've been doing things I have never had to do before when working on Drake gear. I can see when it is finished it will be a really nice T-4XC. I hope I won't have to work on it for the next 40 years.
Lee, w0vt

I've got to refurbish a T-4XC and a R-4C for my ham club, so this is good practice!

[Non-text portions of this message have been removed]

21199. Re: [DrakeRadio] Not quite a Drake question :-)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 20:39:39 UTC
From: Mark Pilant
Topic: 21197 Message: 21199

Sorry about that last email. It was supposed to go directly to
Garey, but my email program got the better of me.

Back to your regularly scheduled program...

73

- Mark N1VQW

21200. Re: [DrakeRadio] Basket Case Drake T-4XC

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 20:43:29 UTC
From: john
Topic: 21198 Message: 21200

Good work at saving a junkyard dog Lee... you have your work cut out for you!

73
John K5MO

At 04:40 PM 5/26/2014, you wrote:

>I've been working on my basket case T-4XC.Â So far:
>1. Cleaned the thing from top to bottom.Â It was really dirty but looks
>pretty good now.Â (I used Q tips and alcohol.Â A lot of Q tips!)
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>the meter.
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>the final plate choke is burned up.Â It's a 750uH three pi choke good for
>300 ma. per Garey, K4OAH.
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>do before when working on Drake gear.Â I can see when it is finished it
>will be a really nice T-4XC.Â I hope I won't have to work on it for the
>next 40 years.
>Lee, w0vt
>
>I've got to refurbish a T-4XC and a R-4C for my ham club, so this is good
>practice!Â
>
>
>
>[Non-text portions of this message have been removed]
>
>
>
>------------------------------------
>Posted by: "L L bahr " <pulsarxp@...>
>------------------------------------
>
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III

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

21201. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 00:21:38 UTC
From: Richard Knoppow
Topic: 21189 Message: 21201

----- Original Message -----
From: "'jim lewis' k5eh@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Monday, May 26, 2014 12:11 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

> Thanks Richard for reply. The fuse lamp was one of the
> first things I cked. It cks good. on to other cks.
>
I suggested it because its easy to overlook. Garey
knows these sets a lot better than I do although I have one.
Follow up on his suggestions.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21202. Re: [DrakeRadio] T-4XB BIAS SUPPLY

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 01:49:00 UTC
From: David Nichols
Topic: 21152 Message: 21202

Hi Garey,
Well I got it figured out and playing again. It took a Different set of tubes but it is working and doing well now. I put the receiver next to it and played with them a little.

Still more to go but I couldnt help myself. I sent you a picture, might be at the bottom.

David - KX7C

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Sunday, May 25, 2014 8:47 AM
Subject: Re: [DrakeRadio] T-4XB BIAS SUPPLY

David -

Have you tried neutralizing on 15 or even 20M first?? The resonance is considerably wider there, and so easier to spot. Then can be refined on 10M when you're 'close'. You could also
use the 'PA Screen voltage removed/receiver or scope on the ANT output/tune neut cap for minimum' method!

The resistors shouldn't affect the parasitic suppressors. The coil around them though is fairly
critical. These are normally 'tuned' to resonate broadly at the frequency where the amplifier
tends to be unstable. This frequency is different for each amplifier configuration and depends
upon physical layout, lead lengths, etc., that cause the instability. I wouldn't think they would affect neutralization much if at all. Are the new coils essentially the same number of
turns, diameter and length??

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@yahoo.com [DrakeRadio] wrote:
> Ok now, Garey, I changed the tubes out but when I couldnt neutralize them I changed those out.
> Now I cant find a sweet spot to neutralize these either. The voltage on the resistors looks good with these but its like the neutralizing cap isnt doing anything.
>
> Am I going to have to change the suppressor resistors back to carbon?

> I have a pair so I can do that, it was working before I changed those.
> Ill see tomorrow, Im getting tired out tonight.
> David - KX7C
>
>
>
>
> Alright Garey,
> I went to change the tubes because there wasnt any difference. The suppressor came off in my hand so I am making some new ones. I have another fresh set of Sylvanias on the way and am hoping they are as good as advertised. I do have another set I can use for now. When I get it back together I will get on with what I was doing. I am using some ceramic comps to put the coil on they are smaller in diameter but equal in length so there will be a little gap between the resistor and the coil. Ive seen some of them be just loops so Im thinking this wont matter.
> David - KX7C
>
>
>
>
> Ill read this again to make sure I follow what you are saying.
> I was just able to neutralize the tubes so I will check the readings again.
> I am pretty happy with the adjustments now, they look ok to me. I will take another look with the volt meter now and see if it changed anything. Ill get back to you on what I find.
>
>
> David -
>
> OK, we were all where you are once upon a time! :-)
>
> Your 6JB6s aren't too well matched. The 'fluctuating' reading on R33 is not good, and probably
> indicates a flaky tube. If your 6JB6 tubes were 'matched', you would read 0.525 VDC across
> either 'perfect' 15 ohm resistor and the meter would read 70 mA of IDLE current. Right now, V6
> is passing 33 mA of idle current, and V5 is only passing 27 mA for a total of 60 mA. You need
> to select a new R38 value that will make the meter read 60 mA, then re-adjust the BIAS for 70
> mA. Since the tubes aren't matched, one is handling 21.6W and the other is 17.6W for a total of
> 39.2W than the 45.5W, equally shared that it should be. This is not all that important right
> now, but should be fixed if you want it RIGHT! :-)
>
> I replace R36 with a 1W resistor, but that ceramic comp will run red hot without changing value,
> so not really all that important.
>

> Your 220 mA is 144W input, which should give you about 79W output, right where I'd expect.
> That's good, although low. Perfect would be .340 on the PLATE meter, for 220W input, and about
> 122W output. You could load for more, but those are the design values.
>
> A new pair of PA tubes, and a new R38 and you should be right on the mark!! Good work!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> Ok Garey,
>> I got things mixed up on the upside down rig. I thought I was on 40m and I had the switch on 80m.
>> I was looking for it to tune up on 40 and things was not looking right. Now that I have that figured out it looks a lot better. Thank goodness! I think I have messed it up enough already.
>>
>> That said, I did install a pair of 6JB6's, ok tubes. Not new but fairly well matched and good.
>> I replaced the blown resistors R32/33 with a matched pair of Ohmite Ceramic Comp. 15 ohm @ 10% 1watt. I got six so I could pick the closest ones to use.
>>
>> I replaced R36 with KOA Speer Metal Oxide 3.3 ohm 1/2 watt @ 5%.
>>
>> 1. Both finals are light up and I now have about 80 watts output on 7.2 MHz. I double checked.
>>
>> 2. Idle current is setup and looking good. The voltage across the resistors is different. R33 on V6 measures about .5+ the digital meter is fluctuating and did not settle down. R32 on V5 is lower at .4.
>> 3. Dummy load is good its the dummy running it I wonder about. hi hi
>> 4. Load looks better now, on 40 meters @ 3.5 and the Plate is @ 7.
>> 5 Plate meter is reading .22.
>> Moral of the story, Make sure you are tuning up on 40 meters with the switches instead of your mind.
>> I think I keep thinking its an 80 to 10 meter rig and I disregard the fact this one has 160 in it.
>>
>>
>> Yep, that'll do it!!! :-)
>>
>> Need a little more information..... C61 is NOT a 'likely' culprit.
>>
>> 1. Are both PA tubes 'lit'?

>>
>> 2. I assume you can set the IDLE current per the manual. If so, measure the DC voltage across
>> each 15 ohm Cathode resistor. They should each be about 0.5 VDC, and about the same.
>>
>> 3. Is your dummy load / antenna / coax good?? Low SWR?
>>
>> 4. Where is the LOAD control set for MAX output?? What BAND are you on, I use 40M.
>>
>> 5. What does the PLATE meter read when 'dipped' at MAX output?
>>
>> This will give us a start!!
>>
>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
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>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols hamcomm7@yahoo.com [DrakeRadio] wrote:
>>> Hi Garey,
>>> I have confirmed the fact that my T-4XB did not have the negative voltage to the finals when the resistors blew.
>>> I have replaced the resistors and repaired the problem with the bias voltage. I have attempted to tune up and I dont like what it is doing. I believe something else must be awry. When I get it to max power the Plate tune is at 3 o'clock and it should not be. I feel some capacitance must now be missing. What are the chances on C61 being bad? I will check but I thought you might get me to the spot I need to look. Those road maps called schematics confuse me sometimes. Is there another tube that might have bit the dust? The good thing is I didnt get anymore fireworks when I turned it on.
>>>
>>> David - KX7C
>>>
>>>

[Non-text portions of this message have been removed]

21203. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 03:31:20 UTC
From: jim lewis
Topic: 21189 Message: 21203

Garey,
Voltage checks on V17 good. On to other checks. Tnx
73, Jim- K5EH
----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Monday, May 26, 2014 11:23 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.

73, Garey - K4OAH
Glen Allen, VA

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and TR-4/C Service Supplement CDs
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k5eh k5eh@... [DrakeRadio] wrote:
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> Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
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> problem? Comments?
> Thanks, Jim, K5EH
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http://www.avast.com

[Non-text portions of this message have been removed]

21204. DC-3 & DC-4 Differences ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 13:45:24 UTC
From: Gary S
Topic: 21204 Message: 21204

Hi folks,

Rummaging thru some of my stuff tonight, looking for some stored vhf gear, I came across a DC-3 Power Supply I didn't know I had !!

Not exactly sure at the moment how I come to have it, but I just wanna check if there are any real differences to a DC-4 (actually have a TR-4cw/RIT) which I wouldn't mind using it with.

73

Gary
vk2zbb/vk2lv

[Non-text portions of this message have been removed]

21205. Re: [DrakeRadio] DC-3 & DC-4 Differences ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 13:55:23 UTC
From: Paul Kraemer
Topic: 21204 Message: 21205

You mean AC-3 and AC-4?
Paul K0UYA

From: "Gary S eli26e9@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Sent: Tuesday, May 27, 2014 8:45 AM
To: <DrakeRadio@yahoogroups.com>
Subject: [DrakeRadio] DC-3 & DC-4 Differences ?

> Hi folks,
>
> Rummaging thru some of my stuff tonight, looking for some stored vhf gear,
> I came across a DC-3 Power Supply I didn't know I had !!
>
> Not exactly sure at the moment how I come to have it, but I just wanna
> check if there are any real differences to a DC-4 (actually have a
> TR-4cw/RIT) which I wouldn't mind using it with.
>
> 73
>
> Gary
> vk2zbb/vk2lv
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: Gary S <eli26e9@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>

21206. Re: [DrakeRadio] DC-3 & DC-4 Differences ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 15:04:00 UTC
From: Garey Barrell
Topic: 21204 Message: 21206

Gary -

The only significant difference is that the DC-4 added a 115 VAC outlet to run a receiver, or
the Twins R-4/T-4X.

The DC-3 will run your TR-4C just fine.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Gary S eli26e9@... [DrakeRadio] wrote:
> Hi folks,
>
> Rummaging thru some of my stuff tonight, looking for some stored vhf gear, I came across a DC-3 Power Supply I didn't know I had !!
>
> Not exactly sure at the moment how I come to have it, but I just wanna check if there are any real differences to a DC-4 (actually have a TR-4cw/RIT) which I wouldn't mind using it with.
>
> 73
>
> Gary
> vk2zbb/vk2lv
>
>

21207. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 15:07:48 UTC
From: John Magliacane
Topic: 20472 Message: 21207

Hi Geoff.

>> MPF102 have become obsolete. J310s are much better devices.
>> You may need to decrease the value of the 1k resistor shown the
>> schematic, as 1K may be too high for the J310s.
>
>
> Any idea of what to use? Or a pointer to what to
> reduce/increase in order to get them to work properly?

I would go lower in resistance -- maybe down to 330 ohms. I would be more concerned with minimizing battery drain than optimizing IMD characteristics, because the Q of the loop will significantly limit the amount of extraneous signals that can enter the preamp, reducing IMD probability.

> And to keep it the least little bit on topic, am I correct in assuming
> that if I were to build a single, not split loop to those specs, and
> plugged it into the loop socket of the SPR-4, it would work?

I'm afraid not. The loop input to the SPR-4 connects directly to the emitter of an NPN transistor -- a VERY low impedance input -- AND the SPR-4 is looking for a low resistance DC path to ground from that input as well, AND it's shunted to ground with a 1000 pF capacitor, too!

You might get away by forming a series resonant circuit between your ferrite loops and your variable capacitor, but you'd also need to provide a DC path to ground across the this tuned circuit as well. Not that it's impossible -- it's just an added complication. But then your loop would no longer be balanced, and would become sensitive to E-fields, and this would degrade the SNR.

I think you would be much better with your first approach: Obtain resonance through parallel (variable) capacitance across the loop%

21208. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 15:23:27 UTC
From: John Magliacane
Topic: 20472 Message: 21208

Hi Geoff.

>> MPF102 have become obsolete. J310s are much better devices.
>> You may need to decrease the value of the 1k resistor shown the
>> schematic, as 1K may be too high for the J310s.
>
>
> Any idea of what to use? Or a pointer to what to
> reduce/increase in order to get them to work properly?

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I think you would be much better with your first approach: Obtain resonance through parallel (variable) capacitance across the loop, buffer the output through a high-Z balanced differential amplifier, and feed the low-Z unbalanced output of the buffer directly to the SPR-4.

But I'd also check to see what value of DC resistance the SPR-4 needs across it's loop antenna input terminals, too, and incorporate that into your loop preamp circuit as well.

BTW, you can find a nice balanced LF loop preamp circuit using J310s here (down at the bottom):

http://www.lowfer.us/k0lr/bal-pre/bal-pre.htm

It uses a 2N2222 as a constant current source in place of a resistor in series with the J310 sources, and it uses varactor diodes to electronically (remotely) tune the loop. Should serve as the basis for what you're trying to do.

73 ,de John, KD2BD

--
Visit John on the Web at:
http://www.qsl.net/kd2bd/

21209. Re: [DrakeRadio] DC-3 & DC-4 Differences ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 16:03:01 UTC
From: vacuuminded2@...
Topic: 21204 Message: 21209

What Glen said.

I've been using a DC-3 with the mobile TR-4 for several years now. Had to replace the diodes last year (would recommend doing this, the old ones are weak) after one blew, and checked out all the caps. Not a single one had appreciable leakage!

They are a bit noisy and get VERY warm, but the DC-3 is a nice little supply!

Chris

Sent from my outdated iPhone wireless thingy

On May 27, 2014, at 10:04 AM, "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Gary -
>
> The only significant difference is that the DC-4 added a 115 VAC outlet to run a receiver, or
> the Twins R-4/T-4X.
>
> The DC-3 will run your TR-4C just fine.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
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> Gary S eli26e9@... [DrakeRadio] wrote:
> > Hi folks,
> >
> > Rummaging thru some of my stuff tonight, looking for some stored vhf gear, I came across a DC-3 Power Supply I didn't know I had !!
> >
> > Not exactly sure at the moment how I come to have it, but I just wanna check if there are any real differences to a DC-4 (actually have a TR-4cw/RIT) which I wouldn't mind using it with.
> >
> > 73
> >
> > Gary
> > vk2zbb/vk2lv
> >
> >

>
>

[Non-text portions of this message have been removed]

21210. Re: [DrakeRadio] DC-3 & DC-4 Differences ?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 16:06:09 UTC
From: vacuuminded2@...
Topic: 21204 Message: 21210

Wait.. Glen? Who's Glen!

Edit- What GAREY said.

Where's that coffee...

Chris kc9ieq

Sent from my outdated iPhone wireless thingy

On May 27, 2014, at 11:03 AM, "vacuuminded2@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> What Glen said.
>
> I've been using a DC-3 with the mobile TR-4 for several years now. Had to replace the diodes last year (would recommend doing this, the old ones are weak) after one blew, and checked out all the caps. Not a single one had appreciable leakage!
>
> They are a bit noisy and get VERY warm, but the DC-3 is a nice little supply!
>
> Chris
>
> Sent from my outdated iPhone wireless thingy
>
> On May 27, 2014, at 10:04 AM, "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:
>
> > Gary -
> >
> > The only significant difference is that the DC-4 added a 115 VAC outlet to run a receiver, or
> > the Twins R-4/T-4X.
> >
> > The DC-3 will run your TR-4C just fine.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > Gary S eli26e9@... [DrakeRadio] wrote:
> > > Hi folks,
> > >

> > > Rummaging thru some of my stuff tonight, looking for some stored vhf gear, I came across a DC-3 Power Supply I didn't know I had !!
> > >
> > > Not exactly sure at the moment how I come to have it, but I just wanna check if there are any real differences to a DC-4 (actually have a TR-4cw/RIT) which I wouldn't mind using it with.
> > >
> > > 73
> > >
> > > Gary
> > > vk2zbb/vk2lv
> > >
> > >
> >
> >
>
> [Non-text portions of this message have been removed]
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>

[Non-text portions of this message have been removed]

21211. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-27 17:11:11 UTC
From: Garey Barrell
Topic: 21189 Message: 21211

Jim -

Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??

If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
then swap V7 with V12. If no change, swap back.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
>
> Garey,
> Voltage checks on V17 good. On to other checks. Tnx
> 73, Jim- K5EH
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, May 26, 2014 11:23 AM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
> by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> k5eh k5eh@... [DrakeRadio] wrote:
> > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr

> > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > checks note no cathode voltage on pin 2 of V2. Could this be the
> > problem? Comments?
> > Thanks, Jim, K5EH
> >
>
>
>
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]
>
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>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
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> Yahoo Groups Links
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21212. Re: [DrakeRadio] Not quite a Drake question :-)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-26 20:51:35 UTC
From: Whitebear1122
Topic: 21197 Message: 21212

I know you intended this to be off line but I'll be happy to offer up a few comments. I am not aware of any K4OAH style CDs for Collins. Google Hi-res Communication, Flloyd Soo, and he offers a complete line of video DVD's documenting experts (and I mean the top dogs) repairs 32S, 75S, 30L-1's, etc, including PTO rebuilding, aligning. The Collins Collectors Association at collinsradio.org has a large online collection of manuals and service bulletins for S-line radios. You might consider joining subscribing to the CCA reflector and asking this question about mods and if some mod summary exists somewhere. I know Electric Radio has some Collins mods stuff for sale in the back but I only remember the 75A-4, not sure if there are any S-Line mods.

73, Scott WA9WFA
Drake and Collins NutXXX Enthusiast

On May 26, 2014, at 3:37 PM, "Mark Pilant n1vqw@... [DrakeRadio]" <DrakeRadio@yahoogroups.com> wrote:

> Hi Garey.
>
> I recently acquired a Collins S-line (32S-1, 75S-1, 516F-2)
> and have started to clean them up. I'm doing the 75S-1 first;
> for no particular reason :-)
>
> Anyway, it appears to have a number of modifications and I was
> wondering if you knew of anyone who had something line your Drake
> CD for the Collins line? (BTW, I have found your CD invaluable.)
> It would sure help to determine what is stock and what isn't.
>
> Thanks in advance.
>
> 73
>
> - Mark N1VQW
>
>

21213. Re: [DrakeRadio] Drake Nets

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-20 19:26:46 UTC
From: Mark J Dossett
Topic: 20876 Message: 21213

Charles - We (the Left coast) also have the Vintage SSB Roundtable on Tuesday evenings, 3.895 +/- around 1900 local. Usually a few Drakes on there. It's a lot of the same guys from the Friday night Collins net. Mark

BTW, they have a Yahoo group too.

Mark J Dossett / K6MJD / San Diego
---
www.k6mjd.com

It would be nice to see something get started here on the left coast.

We have a nice group of operators that have a Collins Net on Friday evenings. True, not much discussion about the radios, but a nice time is had just the same. Gives everyone an excuse to fire up the rig.

Just an idea....

73's de Charles, KW6G (formerly - WB6IYM)
http://wb6iym.googlepages.com/coffeemugnet

[Non-text portions of this message have been removed]

21214. Drake 2a Plus a 2B2 multiplier For Sale

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 00:05:54 UTC
From: Joe
Topic: 21189 Message: 21214

A local (to me) ham want to sell or trade this Drake equipment...

He is Mike Tara, In Reno, Nevada.

Telephone is 775 825-2605

Please contact him directly...I am only passing this info along for Mike...I have no information about this equipment.

Joe - W7RKN

21215. Re: [DrakeRadio] Not quite a Drake question :-)

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 01:30:22 UTC
From: Mark Pilant
Topic: 21197 Message: 21215

Hi Scott.

> I know you intended this to be off line but I'll be happy to offer
> up a few comments. I am not aware of any K4OAH style CDs for Collins.
> Google Hi-res Communication, Flloyd Soo, and he offers a complete line
> of video DVD's documenting experts (and I mean the top dogs) repairs
> 32S, 75S, 30L-1's, etc, including PTO rebuilding, aligning. The
> Collins Collectors Association at collinsradio.org has a large online
> collection of manuals and service bulletins for S-line radios. You
> might consider joining subscribing to the CCA reflector and asking
> this question about mods and if some mod summary exists somewhere.
> I know Electric Radio has some Collins mods stuff for sale in the
> back but I only remember the 75A-4, not sure if there are any S-Line
> mods.

I have a lead on a person that is supposed to have made a similar item to Garey's CD. I have sent an email and am awaiting a reply.

I've been on the Collins reflector for a couple of months now, so I need to post something there as well. I just figure with the high quality of Garey's CDs, he'd probably know of someone doing something similar. (I can't imagine there's a lot of people doing it. :-)

73

- Mark N1VQW

21216. R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 01:38:31 UTC
From: David Nichols
Topic: 21216 Message: 21216

R-4B Alignment

Ok??? What did I miss?
Im at the 50 KHz I.F. step, 6.4.3
I have done steps, 1,2,3,
No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.

I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
OH! May be related??
In the previous step, the 50 KHz Osillator
I attached the alignment load and then turned on the calibrator. I could hear the note until I turned on the Calibrator. When I turned the calibrator on I could not hear any notes. (the calibrator seemed to mute the receiver) I played with the adjustment and got a signal I could sort of work with.
The 25 KHz went slick and things slid down hill from there.

David Nichols
KX7C - Addy, WA

[Non-text portions of this message have been removed]

21217. Re: [DrakeRadio] R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 02:05:13 UTC
From: Garey Barrell
Topic: 21216 Message: 21217

David -

Did you capacity couple the generator to Pin 5 of V5??? 0 dBM should blow the doors off.....

TP-3 is the wire jumper across the CAL board. I think you have a counter, so connect it to one
of the leads of T11. With the CAL ON, you should see a huge signal at 50 kHz. Adjust T11 for
exactly 50.000 kHz. 6.4.3.4 just has you beat the second harmonic of the 25 kHz CAL output against the BFO. The point is just to get the BFO ON 50.000 kHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> R-4B Alignment
>
> Ok??? What did I miss?
> Im at the 50 KHz I.F. step, 6.4.3
> I have done steps, 1,2,3,
> No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.
>
> I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
> OH! May be related??
> In the previous step, the 50 KHz Osillator
> I attached the alignment load and then turned on the calibrator. I could hear the note until I turned on the Calibrator. When I turned the calibrator on I could not hear any notes. (the calibrator seemed to mute the receiver) I played with the adjustment and got a signal I could sort of work with.
> The 25 KHz went slick and things slid down hill from there.
>
> David Nichols
> KX7C - Addy, WA
>
> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
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> Yahoo Groups Links
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21218. Re: [DrakeRadio] R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 02:10:35 UTC
From: David Nichols
Topic: 21216 Message: 21218

It wasnt that high on V5.. I had it cranked up on V3, pin 7.

David Nichols
KX7C - Addy, WA

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 27, 2014 7:05 PM
Subject: Re: [DrakeRadio] R-4B ALIGNMENT

David -

Did you capacity couple the generator to Pin 5 of V5??? 0 dBM should blow the doors off.....

TP-3 is the wire jumper across the CAL board. I think you have a counter, so connect it to one
of the leads of T11. With the CAL ON, you should see a huge signal at 50 kHz. Adjust T11 for
exactly 50.000 kHz. 6.4.3.4 just has you beat the second harmonic of the 25 kHz CAL output against the BFO. The point is just to get the BFO ON 50.000 kHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> R-4B Alignment
>
> Ok??? What did I miss?
> Im at the 50 KHz I.F. step, 6.4.3
> I have done steps, 1,2,3,
> No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.
>
> I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
> OH! May be related??
> In the previous step, the 50 KHz Osillator
> I attached the alignment load and then turned on the calibrator. I could hear the note until I turned on the Calibrator. When I turned the calibrator on I could not hear any

notes. (the calibrator seemed to mute the receiver) I played with the adjustment and got a signal I could sort of work with.
> The 25 KHz went slick and things slid down hill from there.
>
> David Nichols
> KX7C - Addy, WA
>
> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
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> Yahoo Groups Links
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[Non-text portions of this message have been removed]

21219. Re: [DrakeRadio] R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 02:46:51 UTC
From: Garey Barrell
Topic: 21216 Message: 21219

OK. too late at night!!

The CAL should be OFF for this test. You are mixing the 5645 kHz with the 5595 kHz in V3, and
zero beating the 50 kHz output against the BFO. Should occur right on 5645 kHz on the generator, and NOT take a whole lot of signal. This is where a received signal gets downconverted to the 50 kHz IF.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> It wasnt that high on V5.. I had it cranked up on V3, pin 7.
>
>
> David Nichols
> KX7C - Addy, WA
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 27, 2014 7:05 PM
> Subject: Re: [DrakeRadio] R-4B ALIGNMENT
>
>
>
>
> David -
>
> Did you capacity couple the generator to Pin 5 of V5??? 0 dBM should blow the doors off.....
>
> TP-3 is the wire jumper across the CAL board. I think you have a counter, so connect it to one
> of the leads of T11. With the CAL ON, you should see a huge signal at 50 kHz. Adjust T11 for
> exactly 50.000 kHz. 6.4.3.4 just has you beat the second harmonic of the 25 kHz CAL output
> against the BFO. The point is just to get the BFO ON 50.000 kHz.

>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> R-4B Alignment
>>
>> Ok??? What did I miss?
>> Im at the 50 KHz I.F. step, 6.4.3
>> I have done steps, 1,2,3,
>> No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.
>>
>> I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
>> OH! May be related??
>> In the previous step, the 50 KHz Osillator
>> I attached the alignment load and then turned on the calibrator. I could hear the note until I turned on the Calibrator. When I turned the calibrator on I could not hear any notes. (the calibrator seemed to mute the receiver) I played with the adjustment and got a signal I could sort of work with.
>> The 25 KHz went slick and things slid down hill from there.
>>
>> David Nichols
>> KX7C - Addy, WA
>>
>> [Non-text portions of this message have been removed]
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>> ------------------------------------
>> Posted by: David Nichols <hamcomm7@...>
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> [Non-text portions of this message have been removed]
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> ---
> Posted by: David Nichols <hamcomm7@...>
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> Yahoo Groups Links
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21220. Re: [DrakeRadio] R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 02:55:37 UTC
From: David Nichols
Topic: 21216 Message: 21220

Ok, that will make things a lot easier for sure,
I have an idea, how about you rewrite the instructions in todays language and instruments.
I would buy a copy for sure. It was a lot easier getting 50 KHz your way.

David Nichols
KX7C - Addy, WA

_____
From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 27, 2014 7:46 PM
Subject: Re: [DrakeRadio] R-4B ALIGNMENT

OK. too late at night!!

The CAL should be OFF for this test. You are mixing the 5645 kHz with the 5595 kHz in V3, and
zero beating the 50 kHz output against the BFO. Should occur right on 5645 kHz on the generator, and NOT take a whole lot of signal. This is where a received signal gets downconverted to the 50 kHz IF.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@yahoo.com [DrakeRadio] wrote:
> It wasnt that high on V5.. I had it cranked up on V3, pin 7.
>
>
> David Nichols
> KX7C - Addy, WA
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 27, 2014 7:05 PM
> Subject: Re: [DrakeRadio] R-4B ALIGNMENT
>
>
>
>

> David -
>
> Did you capacity couple the generator to Pin 5 of V5??? 0 dBM should blow the doors off.....
>
> TP-3 is the wire jumper across the CAL board. I think you have a counter, so connect it to one
> of the leads of T11. With the CAL ON, you should see a huge signal at 50 kHz. Adjust T11 for
> exactly 50.000 kHz. 6.4.3.4 just has you beat the second harmonic of the 25 kHz CAL output
> against the BFO. The point is just to get the BFO ON 50.000 kHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> R-4B Alignment
>>
>> Ok??? What did I miss?
>> Im at the 50 KHz I.F. step, 6.4.3
>> I have done steps, 1,2,3,
>> No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.
>>
>> I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
>> OH! May be related??
>> In the previous step, the 50 KHz Osillator
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>> The 25 KHz went slick and things slid down hill from there.
>>
>> David Nichols
>> KX7C - Addy, WA
>>
>> [Non-text portions of this message have been removed]
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>> ------------------------------------
>> Posted by: David Nichols <hamcomm7@...>

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> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
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[Non-text portions of this message have been removed]

21221. Re: [DrakeRadio] R-4B ALIGNMENT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 03:08:33 UTC
From: Garey Barrell
Topic: 21216 Message: 21221

David -

You have to remember that most hams didn't have that kind of test equipment in the mid 60's.

The best thing that happened to hams was when all of industry switched over to automated test
equipment, resulting in tons of high quality HP, TEK, GR and other gear that couldn't support
ATE hitting the market.!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok, that will make things a lot easier for sure,
> I have an idea, how about you rewrite the instructions in todays language and instruments.
> I would buy a copy for sure. It was a lot easier getting 50 KHz your way.
>
>
> David Nichols
> KX7C - Addy, WA
>
>
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> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 27, 2014 7:46 PM
> Subject: Re: [DrakeRadio] R-4B ALIGNMENT
>
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>
> OK. too late at night!!
>
> The CAL should be OFF for this test. You are mixing the 5645 kHz with the 5595 kHz in V3, and
> zero beating the 50 kHz output against the BFO. Should occur right on 5645 kHz on the
> generator, and NOT take a whole lot of signal. This is where a received signal gets

> downconverted to the 50 kHz IF.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> It wasnt that high on V5.. I had it cranked up on V3, pin 7.
>>
>>
>> David Nichols
>> KX7C - Addy, WA
>>
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>> _____
>> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
>> To: DrakeRadio@yahoogroups.com
>> Sent: Tuesday, May 27, 2014 7:05 PM
>> Subject: Re: [DrakeRadio] R-4B ALIGNMENT
>>
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>>
>>
>> David -
>>
>> Did you capacity couple the generator to Pin 5 of V5??? 0 dBM should blow the doors
off.....
>>
>> TP-3 is the wire jumper across the CAL board. I think you have a counter, so connect it
to one
>> of the leads of T11. With the CAL ON, you should see a huge signal at 50 kHz. Adjust T11
for
>> exactly 50.000 kHz. 6.4.3.4 just has you beat the second harmonic of the 25 kHz CAL
output
>> against the BFO. The point is just to get the BFO ON 50.000 kHz.
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>> 73, Garey - K4OAH
>> Glen Allen, VA
>>
>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> David Nichols hamcomm7@... [DrakeRadio] wrote:
>>> R-4B Alignment

>>>
>>> Ok??? What did I miss?
>>> Im at the 50 KHz I.F. step, 6.4.3
>>> I have done steps, 1,2,3,
>>> No can do step 4... my signal gen is maxed out (set to 0 dBm) and I cant hardly work up an S1 signal level. S9 seems like its unattainable. I begin to hear the signal at about the -20 level and I can hear it pretty good at "0" but no S meter movement.
>>>
>>> I thought, well, maybe I can get a signal if I adjust and build it up but I really didnt find anything to work with. So I have adjusted T7/T10 looking for an indication and finding none. I was able to increase the voltage a little with T14 but that didnt help me.
>>> OH! May be related??
>>> In the previous step, the 50 KHz Osillator
>>> I attached the alignment load and then turned on the calibrator. I could hear the note until I turned on the Calibrator. When I turned the calibrator on I could not hear any notes. (the calibrator seemed to mute the receiver) I played with the adjustment and got a signal I could sort of work with.
>>> The 25 KHz went slick and things slid down hill from there.
>>>
>>> David Nichols
>>> KX7C - Addy, WA
>>>
>>> [Non-text portions of this message have been removed]
>>>
>>>
>>>
>>> ------------------------------------
>>> Posted by: David Nichols <hamcomm7@...>
>>> ------------------------------------
>>>
>>> Yahoo Groups Links
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>>
>> [Non-text portions of this message have been removed]
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>>
>>
>> ------------------------------------
>> Posted by: David Nichols <hamcomm7@...>
>> ------------------------------------
>>
>> Yahoo Groups Links
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>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: David Nichols <hamcomm7@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21222. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 04:03:28 UTC
From: jim lewis
Topic: 21189 Message: 21222

Garey,

Yes, both relays click on 40, lsb and usb. I haven't tried other bands. I am using the setup in the manual for resistance and voltage checks. All tubes cked ok on checker, but will do the tube swap thing. Thanks for responding, again.

73, Jim, K5EH
----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 27, 2014 12:11 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??

If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
then swap V7 with V12. If no change, swap back.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
>
> Garey,
> Voltage checks on V17 good. On to other checks. Tnx
> 73, Jim- K5EH
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, May 26, 2014 11:23 AM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you

mean
> by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> k5eh k5eh@... [DrakeRadio] wrote:
> > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > checks note no cathode voltage on pin 2 of V2. Could this be the
> > problem? Comments?
> > Thanks, Jim, K5EH
> >
>
>
>
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]
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>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
>
> Yahoo Groups Links
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>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21223. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 04:20:13 UTC
From: jim lewis
Topic: 21189 Message: 21223

Garey,
I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?

Thanks, Jim, K5EH

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Tuesday, May 27, 2014 12:11 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??

If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
then swap V7 with V12. If no change, swap back.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
>
> Garey,
> Voltage checks on V17 good. On to other checks. Tnx
> 73, Jim- K5EH
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Monday, May 26, 2014 11:23 AM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you

mean
> by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> k5eh k5eh@... [DrakeRadio] wrote:
> > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > checks note no cathode voltage on pin 2 of V2. Could this be the
> > problem? Comments?
> > Thanks, Jim, K5EH
> >
>
>
>
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@cox.net>
> ------------------------------------
>
> Yahoo Groups Links
>
>
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>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21224. Re: [DrakeRadio] Re: (OT) LF Receive Antenna with SPR-4

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 05:03:51 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21224

On 5/27/2014 6:07 PM, John Magliacane kd2bd@... [DrakeRadio] wrote:
>
>
> I would go lower in resistance -- maybe down to 330 ohms. I would be
> more concerned with minimizing battery drain than optimizing IMD
> characteristics, because the Q of the loop will significantly limit
> the amount of extraneous signals that can enter the preamp, reducing
> IMD probability.
>

Ok thanks.

> > And to keep it the least little bit on topic, am I correct in assuming
> > that if I were to build a single, not split loop to those specs, and
> > plugged it into the loop socket of the SPR-4, it would work?
>
> I'm afraid not. The loop input to the SPR-4 connects directly to the
> emitter of an NPN transistor -- a VERY low impedance input -- AND the
> SPR-4 is looking for a low resistance DC path to ground from that
> input as well, AND it's shunted to ground with a 1000 pF capacitor, too!
>
> You might get away by forming a series resonant circuit between your
> ferrite loops and your variable capacitor, but you'd also need to
> provide a DC path to ground across the this tuned circuit as well. Not
> that it's impossible -- it's just an added complication. But then your
> loop would no longer be balanced, and would become sensitive to
> E-fields, and this would degrade the SNR.
>

That explains a lot of things to me. In a previous home, our backyard
was on the end of a nature preserve. Our fence was 11 meters from the
building, enough to be out of the noise cloud. A coax loop made from
RG-6 to the specs of loop sold with the SPR-4 worked well. The original
drake loop was made with RG-174, connected to ground at one end (and the
amp at the other). This one was hung on the fence, and wired the same
way, with about 15 meters of RG-6 coax in between.

With it I was able to pull in the BBC station on 648kHz. It was mostly
noise, but there. I did not know they were about to shut it down, so I
did not record it. :-(

> I think you would be much better with your first approach: Obtain
> resonance through parallel (variable) capacitance across the loop%
>
>
> --

>

Thanks, I'm attempting to obtain one. While I am waiting I finished a PA0RDT sort of loop. I did not have 2n5019 transistors, so I substituted a 2n5179. So far it works, but I have only tried it indoors and it just amplifies the noise.

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21225. AC-4 Power Supply and T-4XC Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 05:37:02 UTC
From: L L bahr
Topic: 21225 Message: 21225

Did Drake ever actually print a circuit diagram for the AC-4 Power Supply containing the 110/220 switch? I sure would like to find a copy for my records. The reason I ask is I acquired an AC-4 having the slide switch holes punched into the chassis yet the power supply was factory wired as without the switch. (The chassis never had a slide switch mounted on the chassis.) The chassis does not have the 110 and 220 volt markings on it either, just the holes for the switch. I've decided to add the switch which is simple enough to do. I've figured out how to wire it but will have to lengthen a couple transformer leads to do it. It would be nice to have a factory diagram showing the switch. However, I suspect Drake actually never produced such a diagram to the general public.

As for the progress on my T-4XC, I'm waiting for parts. I ordered ball bearings for the PTO as well as the missing PTO tension spring. The PC board containing RF pi choke L1 had L1 fried so I have a complete replacement board coming as well as some high current pi chokes to rebuild the existing board if I don't make use of the new board coming my way. (It amazes me Drake used such a small current handling choke to pass 300 ma through it.) At any rate I can solve the burned up choke problem with either solution. I am leaning towards rebuilding the old board with one of my high current pi chokes as I am not impressed with the Drake specified compon ent. I'm also waiting for a replacement can electrolytic to show up too. (I fully intended to replace the can electrolytic, just for drill, but this one needs to be replaced anyway because beetle ju ice is starting to come out of it.)

I guess while I am waiting for the above to show up I could start replacing the final screen and cathode resistors. Maybe even pass some time and build up new parasitic chokes for the finals.

Lee, w0vt

[Non-text portions of this message have been removed]

21226. Re: [DrakeRadio] AC-4 Power Supply and T-4XC Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 06:35:48 UTC
From: Joe W2KJ
Topic: 21225 Message: 21226

Howdy Lee:

Here is a copy of the AC4 manual with schematic...hope it helps.

Also, go to WB4HFN's website...believe he has pictures of the bottom of the AC4 showing the xfmr connections to the slide 110/220 vac switch.

>

Best of luck with your C-Line rehab for your club.

73, Joe W2KJ

> Did Drake ever actually print a circuit diagram for the AC-4 Power Supply containing the 110/220 switch? I sure would like to find a copy for my records. The reason I ask is I acquired an AC-4 having the slide switch holes punched into the chassis yet the power supply was factory wired as without the switch. (The chassis never had a slide switch mounted on the chassis.) The chassis does not have the 110 and 220 volt markings on it either, just the holes for the switch. I've decided to add the switch which is simple enough to do. I've figured out how to wire it but will have to lengthen a couple transformer leads to do it. It would be nice to have a factory diagram showing the switch. However, I suspect Drake actually never produced such a diagram to the general public.
>
> As for the progress on my T-4XC, I'm waiting for parts. I ordered ball bearings for the PTO as well as the missing PTO tension spring. The PC board containing RF pi choke L1 had L1 fried so I have a complete replacement board coming as well as some high current pi chokes to rebuild the existing board if I don't make use of the new board coming my way. (It amazes me Drake used such a small current handling choke to pass 300 ma through it.) At any rate I can solve the burned up choke problem with either solution. I am leaning towards rebuilding the old board with one of my high current pi chokes as I am not impressed with the Drake specified compon ent. I'm also waiting for a replacement can electrolytic to show up too. (I fully intended to replace the can electrolytic, just for drill, but this one needs to be replaced anyway because beetle ju ice is starting to come out of it.)
>
> I guess while I am waiting for the above to show up I could start replacing the final screen and cathode resistors. Maybe even pass some time and build up new parasitic chokes for the finals.
>
> Lee, w0vt

[Non-text portions of this message have been removed]

21227. Re: [DrakeRadio] AC-4 Power Supply and T-4XC Update

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 14:26:09 UTC
From: L L bahr
Topic: 21225 Message: 21227

Joe

Send it to me direct as Yahoo has scrubbed your diagram. Send to: pulsarxp@... .

Thanks,

Lee, w0vt

----- Original Message -----

From: "Joe W2KJ jotrom@bellsouth.net [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "'L L bahr ' pulsarxp@embarqmail.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 28, 2014 1:35:48 AM
Subject: Re: [DrakeRadio] AC-4 Power Supply and T-4XC Update

Howdy Lee:

Here is a copy of the AC4 manual with schematic...hope it helps.

Also, go to WB4HFN's website...believe he has pictures of the bottom of the AC4 showing the xfmr connections to the slide 110/220 vac switch.

>

Best of luck with your C-Line rehab for your club.

73, Joe W2KJ
>
> Did Drake ever actually print a circuit diagram for the AC-4 Power Supply containing the 110/220 switch? I sure would like to find a copy for my records. The reason I ask is I acquired an AC-4 having the slide switch holes punched into the chassis yet the power supply was factory wired as without the switch. (The chassis never had a slide switch mounted on the chassis.) The chassis does not have the 110 and 220 volt markings on it either, just the holes for the switch. I've decided to add the switch which is simple enough to do. I've figured out how to wire it but will have to lengthen a couple transformer leads to do it. It would be nice to have a factory diagram showing the switch. However, I suspect Drake actually never produced such a diagram to the general public.
>
> As for the progress on my T-4XC, I'm waiting for parts. I ordered ball bearings for the PTO as well as the missing PTO tension spring. The PC board containing RF pi choke L1 had L1 fried so I have a complete replacement board coming as well as some high current pi chokes to rebuild the existing board if I don't make use of the new board coming my way. (It amazes me Drake used such a small current handling choke to pass 300 ma through it.) At any rate I can solve the burned up choke problem with either solution. I am leaning towards rebuilding the old board with one of my high current pi chokes as I am not impressed with the Drake specified compon ent. I'm also waiting for a replacement can electrolytic to show

up too. (I fully intended to replace the can electrolytic, just for drill, but this one needs to be replaced anyway because beetle ju ice is starting to come out of it.)
>
> I guess while I am waiting for the above to show up I could start replacing the final screen and cathode resistors. Maybe even pass some time and build up new parasitic chokes for the finals.
>
> Lee, w0vt

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21228. Re: Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 15:23:50 UTC
From: fasan5@...
Topic: 20718 Message: 21228

Hi Garey,

I have cleaned the band switch, replaced V2 with an 6EA8 and checked the 50 kHz and 405 kHz oscillators with a frequency counter. They are spot on, and The Passband Tuner is in the right position. Using a signal generator I have checked sensitivity, and there is still a clear lack of sensitivity on 80 and 20 meter. I have S8 on 80 meters and S7 meters on 20 meters, but S9+10 on 40 meters, where the receiver works absoutely fine. So what to look for next?

73
Peter OZ8CTH

[Non-text portions of this message have been removed]

21229. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 15:30:01 UTC
From: Garey Barrell
Topic: 21189 Message: 21229

Jim -

The same PTO is used to transmit and receive. I think you said transmit was ok??

You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator on 21.5
MHz, and the PreMixer output at 16.0 MHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
> I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?
>
> Thanks, Jim, K5EH
>
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 27, 2014 12:11 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
>
> If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> then swap V7 with V12. If no change, swap back.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs

> <www.k4oah.com>
>
> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> >
> > Garey,
> > Voltage checks on V17 good. On to other checks. Tnx
> > 73, Jim- K5EH
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Monday, May 26, 2014 11:23 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > Jim -
> >
> > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for
audio
> > preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you
mean
> > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > k5eh k5eh@... [DrakeRadio] wrote:
> > > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > problem? Comments?
> > > Thanks, Jim, K5EH
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> > ---
> > This email is free from viruses and malware because avast! Antivirus protection is
active.
> > http://www.avast.com
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> >
> > [Non-text portions of this message have been removed]

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> >
> >
> > ------------------------------------
> > Posted by: "jim lewis" <k5eh@...>
> > ------------------------------------
> >
> > Yahoo Groups Links
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> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
>
> Yahoo Groups Links
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>

21230. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 17:56:36 UTC
From: Chgypsy@...
Topic: 20472 Message: 21230

AUX-7s show up now and then on eBay, but they command a premium price. The most cost effective way to find one is in a radio. There are no kits that I know of.

Jim and the group,
OH yes there is..... !

I believe it was July 1982 issue of QST that had an article titled "WARC and LF for the TR7"

In any case there is a printed circuit board which is still available from a vendor. I'm sorry but the name escapes me at the moment...he was at the Dayton Hamvention again this year as normal. I'm looking at his tent in my mind.

As you have mentioned in the past it only uses eight resistors and about 32 diodes....the cheap ones.... HI
The hard part was the connectors which I did obtain through Mouser (but have a real thing source much less expensive)
The real thing connectors do NOT have to be bent around to use fwiw.

When I get home I will reiterate who the PC board vendor is.....
73's Carl WD8NHK

[Non-text portions of this message have been removed]

21231. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 18:10:12 UTC
From: M K
Topic: 20472 Message: 21231

The circuit board company is probably FAR Circuits.

On Wed, May 28, 2014 at 1:56 PM, Chgypsy@... [DrakeRadio] <
DrakeRadio@yahoogroups.com> wrote:

>
>
>
>
> AUX-7s show up now and then on eBay, but they command a premium price. The
> most
> cost effective way to find one is in a radio. There are no kits that I
> know of.
>
> Jim and the group,
> OH yes there is.................. !
>
> I believe it was July 1982 issue of QST that had an article titled "WARC
> and LF for the TR7"
>
> In any case there is a printed circuit board which is still available from
> a vendor. I'm sorry but the name escapes me at the moment...he was at the
> Dayton Hamvention again this year as normal. I'm looking at his tent in my
> mind.
>
> As you have mentioned in the past it only uses eight resistors and about
> 32 diodes....the cheap ones.... HI
> The hard part was the connectors which I did obtain through Mouser (but
> have a real thing source much less expensive)
> The real thing connectors do NOT have to be bent around to use fwiw.
>
> When I get home I will reiterate who the PC board vendor is.......
> 73's Carl WD8NHK
>
> [Non-text portions of this message have been removed]
>
>
>

[Non-text portions of this message have been removed]

21232. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 18:11:09 UTC
From: Don Cunningham
Topic: 20472 Message: 21232

Carl,
It is FAR Circuits of Dundee, IL fame. I don't know of his PC Board
quality, but he does still show the kits and somewhere in my "archives"
I have the article. It sure looks simple to replicate, and would be a
neat project.
73,
Don, WB5HAK
On 5/28/2014 12:56 PM, Chgypsy@... [DrakeRadio] wrote:
>
>
>
> AUX-7s show up now and then on eBay, but they command a premium price.
> The most
> cost effective way to find one is in a radio. There are no kits that I
> know of.
>
> Jim and the group,
> OH yes there is.................. !
>
> I believe it was July 1982 issue of QST that had an article titled
> "WARC and LF for the TR7"
>
> In any case there is a printed circuit board which is still available
> from a vendor. I'm sorry but the name escapes me at the moment...he
> was at the Dayton Hamvention again this year as normal. I'm looking at
> his tent in my mind.
>
> As you have mentioned in the past it only uses eight resistors and
> about 32 diodes....the cheap ones.... HI
> The hard part was the connectors which I did obtain through Mouser
> (but have a real thing source much less expensive)
> The real thing connectors do NOT have to be bent around to use fwiw.
>
> When I get home I will reiterate who the PC board vendor is.......
> 73's Carl WD8NHK
>
> [Non-text portions of this message have been removed]
>
>

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http://www.avast.com

[Non-text portions of this message have been removed]

21233. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 18:36:06 UTC
From: geoffrey mendelson
Topic: 20472 Message: 21233

On 5/28/2014 9:10 PM, M K ka2mce@... [DrakeRadio] wrote:
>
> The circuit board company is probably FAR Circuits.
>

BINGO!

Now all I have to do is convince him to send one to me (his web page does not mention international shipments. :-)

I also have to figure out how to get the connectors.

Thanks and 73,

Geoff.

--
Geoffrey S. Mendelson 4X1GM/N3OWJ
Jerusalem Israel.

[Non-text portions of this message have been removed]

21234. Re: [DrakeRadio] Re: Drake 2B low signals

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 20:19:20 UTC
From: Garey Barrell
Topic: 20718 Message: 21234

Peter -

Interesting problem.... Remember that the 2-B is basically an 80M receiver with two RF stages,
that covers all the other ranges by converting the 2nd RF amplifier to a Mixer/Oscillator. This
is the 6U8/6EA8 stage, V2. So essentially the receiver from V3 on is an 80M receiver.

You say it is insensitive on 80 and 20. On 80M V2 is an 80M RF AMP, while on 20M a crystal oscillator at 18.0 MHz (the triode section of V2) injects a signal into the Pentode RF amplifier
section which becomes a Mixer, outputting 3.5 to 4.1 MHz for 14.5 to 13.9 MHz coverage. Obviously V2 is a potential source of trouble, but I don't follow why it doesn't work well on
80M yet works fine on 40M.

V1 covers 3.5 - 30 MHz by tuning the PreSelector. If you are satisfied that your 6EA8 is 'good', I would suggest following sections G and H of the Alignment Procedure from the manual.
C5 and of course C6 will affect 80M sensitivity, and L10 for 20M and up.

Let us know what you find. Also don't forget that there can be considerable differences between
the CALibrator output from one 100 kHz point to the next.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

fasan5@... [DrakeRadio] wrote:
> Hi Garey,
>
>
> I have cleaned the band switch, replaced V2 with an 6EA8 and checked the 50 kHz and 405 kHz oscillators with a frequency counter. They are spot on, and The Passband Tuner is in the right position. Using a signal generator I have checked sensitivity, and there is still a clear lack of sensitivity on 80 and 20 meter. I have S8 on 80 meters and S7 meters on 20 meters, but S9+10 on 40 meters, where the receiver works absoutely fine. So what to look for next?
>
>
> 73
> Peter OZ8CTH
>

>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: fasan5@...
> ------------------------------------
>
> Yahoo Groups Links
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21235. Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 20:44:52 UTC
From: handla@...
Topic: 21235 Message: 21235

Hello folks. Just get my hands on a L4B and have started to "test drive" it a little. When I start up the amp I have a humming noise (vibrating sound) from the area around the filament transformer. Just want to check if anybody know if this is a common problem on the L4B. After about 5 to 10 minutes the sound is gone and everything is normal. The sound can maybe come from the fan motor but I have tried to check that but next thing to do is to disconnect the motor and start up and listen. I am from Sweden so we have 50 Hz not 60 in our AC.

Anyone with some idea?
Regards from Sweden

Jan SM5SUH

[Non-text portions of this message have been removed]

21236. T4XC No CW output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-28 22:41:17 UTC
From: tjb813@...
Topic: 21236 Message: 21236

I started with a basket case T4XC. Fixed the vfo. Then I fixed the HET oscillator. Then the Carrier oscillator needed some encouragement. Now I get a signal into T14 can, but nothing out. Its the balanced modulator. There should be a dc voltage to upset the modulator so the Carrier can pass through. I think the voltage from the Gain control is too low. Does anyone know what voltage should be put on the diodes in T14 for CW? I would assume it should be at least afew volts. I get 50mV from the Gain pot. All of the switches and knobs are in the correct position. The relay closes (when I key) and I get voltages on V2 right on target.

I guess I'm going to need Garey's CD to figure out where all of the resistors are. Difficult to trace them through. This transmitter was a $10 parts unit from Dayton and I'm really enjoying digging into it. I will enjoy using it with my 2B when it finally works.

Thanks in advance for the help

KD8CN
Tim

[Non-text portions of this message have been removed]

21237. R-4B alignment problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 00:08:05 UTC
From: David Nichols
Topic: 21237 Message: 21237

Antenna, R.F., and Injection Circuits
Locate S5C and S5D (the third and fourth bandswitch wafers from the front)
Two rotor contacts are colored GREEN, connect a 10K ohm resistor to ground and another 10K resistor to B+. I "THINK" I see a couple of green contacts, looks like corrosion to me.
When I do this, I really want to be sure Im doing it right. I have made to many errors lately.
Looking from the front at the third wafer back. I think the contact I want is at about the 8 oclock position just below the screw head.
Looking from the rear at the fourth one back. I think the contact is at about the 4 oclock position just below the screw nut.
Can anyone either confirm my belief or straighten me out please.
I will make sure these are undeniably green when I find the right ones.

David Nichols
KX7C - Addy, WA

[Non-text portions of this message have been removed]

21238. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 01:12:49 UTC
From: jim lewis
Topic: 21189 Message: 21238

Garey,

Ahhh...duh. Have too many checks going on and forgot what was working and what was not! Must regroup and give my 70 year old brain a rest!

CUL. 73

Jim- K5EH

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 28, 2014 10:30 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

The same PTO is used to transmit and receive. I think you said transmit was ok??

You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator on 21.5
MHz, and the PreMixer output at 16.0 MHz.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
> I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?
>
> Thanks, Jim, K5EH
>
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Tuesday, May 27, 2014 12:11 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>

> Jim -
>
> Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
>
> If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> then swap V7 with V12. If no change, swap back.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> >
> > Garey,
> > Voltage checks on V17 good. On to other checks. Tnx
> > 73, Jim- K5EH
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Monday, May 26, 2014 11:23 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > Jim -
> >
> > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> > preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
> > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > k5eh k5eh@... [DrakeRadio] wrote:
> > > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > problem? Comments?

> > > Thanks, Jim, K5EH
> > >
> >
> >
> >
> >
> >
> > ---
> > This email is free from viruses and malware because avast! Antivirus protection is active.
> > http://www.avast.com
> >
> >
> > [Non-text portions of this message have been removed]
> >
> >
> >
> > ------------------------------------
> > Posted by: "jim lewis" <k5eh@...>
> > ------------------------------------
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> > Yahoo Groups Links
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>
> ---
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> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21239. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 01:25:55 UTC
From: Garey Barrell
Topic: 21189 Message: 21239

jIM -

No problem... Been there! This is why I like to leave the 'history' of a project on the message. Makes it easier to go back and keep things straight.

Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or working.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
>
> Ahhh...duh. Have too many checks going on and forgot what was working and what was not! Must regroup and give my 70 year old brain a rest!
>
> CUL. 73
>
> Jim- K5EH
>
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 28, 2014 10:30 AM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> The same PTO is used to transmit and receive. I think you said transmit was ok??
>
> You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator on 21.5
> MHz, and the PreMixer output at 16.0 MHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs

> <www.k4oah.com>
>
> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > Garey,
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> >
> > Thanks, Jim, K5EH
> >
> >
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Tuesday, May 27, 2014 12:11 PM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > Jim -
> >
> > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
> >
> > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
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> >
> > 73, Garey - K4OAH
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> > > Garey,
> > > Voltage checks on V17 good. On to other checks. Tnx
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> > > ----- Original Message -----
> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Monday, May 26, 2014 11:23 AM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > >
> > >
> > >
> > > Jim -
> > >

> > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
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> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
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> > >
> > > k5eh k5eh@... [DrakeRadio] wrote:
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> > > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > problem? Comments?
> > > > Thanks, Jim, K5EH
> > > >

21240. Re: [DrakeRadio] R-4B alignment problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 01:29:07 UTC
From: Garey Barrell
Topic: 21237 Message: 21240

David -

These are the 'wiper' contacts, which are the longer ones. They reach farther toward the center
of the wafer, so they are ALWAYS in contact with the switch segment(s). The 'green' is getting
a little faded on them by now, but if you look at the 'length' of the contact you'll see the
difference.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Antenna, R.F., and Injection Circuits
> Locate S5C and S5D (the third and fourth bandswitch wafers from the front)
> Two rotor contacts are colored GREEN, connect a 10K ohm resistor to ground and another 10K resistor to B+. I "THINK" I see a couple of green contacts, looks like corrosion to me. When I do this, I really want to be sure Im doing it right. I have made to many errors lately.
> Looking from the front at the third wafer back. I think the contact I want is at about the 8 oclock position just below the screw head.
> Looking from the rear at the fourth one back. I think the contact is at about the 4 oclock position just below the screw nut.
> Can anyone either confirm my belief or straighten me out please.
> I will make sure these are undeniably green when I find the right ones.
>
>

21241. Re: [DrakeRadio] R-4B alignment problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 02:17:29 UTC
From: David Nichols
Topic: 21237 Message: 21241

Ok Garey, thanks.. those are the ones I was looking at. They made more sense to be the ones and they have some light green color. I had noticed the color before but thought it must be some corrosion. The way I have been messing things up lately I decided I would wait and see if someone else would let me know if I was on the right path or not. The only good thing about the mistakes I have made is that I have been able to recover.

David Nichols
KX7C - Addy, WA

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 28, 2014 6:29 PM
Subject: Re: [DrakeRadio] R-4B alignment problem

David -

These are the 'wiper' contacts, which are the longer ones. They reach farther toward the center
of the wafer, so they are ALWAYS in contact with the switch segment(s). The 'green' is getting
a little faded on them by now, but if you look at the 'length' of the contact you'll see the
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73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Antenna, R.F., and Injection Circuits
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> Two rotor contacts are colored GREEN, connect a 10K ohm resistor to ground and another 10K resistor to B+. I "THINK" I see a couple of green contacts, looks like corrosion to me. When I do this, I really want to be sure Im doing it right. I have made to many errors lately.
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> Can anyone either confirm my belief or straighten me out please.
> I will make sure these are undeniably green when I find the right ones.
>
>

[Non-text portions of this message have been removed]

21242. Re: [DrakeRadio] R-4B alignment problem

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 02:27:38 UTC
From: Garey Barrell
Topic: 21237 Message: 21242

Mistakes are just learning experiences in disguise!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok Garey, thanks.. those are the ones I was looking at. They made more sense to be the ones and they have some light green color. I had noticed the color before but thought it must be some corrosion. The way I have been messing things up lately I decided I would wait and see if someone else would let me know if I was on the right path or not. The only good thing about the mistakes I have made is that I have been able to recover.
>
>
> David Nichols
> KX7C - Addy, WA
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 28, 2014 6:29 PM
> Subject: Re: [DrakeRadio] R-4B alignment problem
>
>
>
>
> David -
>
> These are the 'wiper' contacts, which are the longer ones. They reach farther toward the center
> of the wafer, so they are ALWAYS in contact with the switch segment(s). The 'green' is getting
> a little faded on them by now, but if you look at the 'length' of the contact you'll see the
> difference.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> David Nichols hamcomm7@... [DrakeRadio] wrote:
>> Antenna, R.F., and Injection Circuits
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>> Can anyone either confirm my belief or straighten me out please.
>> I will make sure these are undeniably green when I find the right ones.
>>

21243. Re: Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 03:03:02 UTC
From: milton_valerio@...
Topic: 21235 Message: 21243

dont remember clearly but I think there are 2 feedthru capacitors for the filaments, I remember having some problem and it ended in one capacitor starting to short, try disconnecting them from the transformer and see if theres some change also check these capacitors.

[Non-text portions of this message have been removed]

21244. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 03:04:58 UTC
From: Jim Shorney
Topic: 20472 Message: 21244

On Wed, 28 May 2014 13:56:36 -0400 (EDT), Chgypsy@... [DrakeRadio] wrote:

>As you have mentioned in the past it only uses eight resistors and about 32 diodes....the cheap ones....

I wonder what the resistors are for? The band select logic on a real AUX-7 has no resistors. The only resistors on the board are part of the fixed-frequency crystal oscillator and crystal select circuit.

1N4148 is commonly used for the diodes. Any silicon that you have on hand will work. Although 1N540x would be overkill....

73

-Jim
NU0C

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

21245. For sale: 2C/2CQ and 2NT

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 15:14:53 UTC
From: K4GM-George
Topic: 21245 Message: 21245

2C/2CQ and 2NT in excellent condition available for $900 plus shipping from 22554. Includes calibrator in 2C. Will ship double-boxed in three packages. Works great and hate to sell but I can use only so many radios! Also have stock R-4C for $350 plus shipping and stock T-4XC for $275 plus shipping. I have a 2BQ in good shape for $150 plus shipping. Selling because I am reducing my Drake "inventory". Contact me outside of the reflector with questions.

73, George K4GM

21246. SPOT volume TOO LOUD!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 15:16:12 UTC
From: rochep@...
Topic: 21246 Message: 21246

I am using my R4A/T4XB in "separates" mode, have the FUNCTION switch on the R4A to external mute, and use the SPOT position on the T4XB so my TX frequency matches my RX frequency. That is all fine, but when chasing weak DX my GAIN controls on RX are pretty high, and when I go to SPOT to bring the TX VFO to my listening frequency the volume of the TX oscillator nearly blows my head off! Of course I can turn down RF or AF gain so this does not happen (and then when I am on frequency turn them back up again), but what a pain.

This is NOT the same as the sidetone volume. Is there some way to decrease the intensity of the SPOT signal (other than move the TX farther away from my RX)?

paul

[Non-text portions of this message have been removed]

21247. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 15:28:40 UTC
From: Tom Evans, AG9X
Topic: 20472 Message: 21247

Jim,

The 8 resistors are 100k pull-down resistors. The diodes are spec'd as IN914.

Tom, AG9X

On Wed, May 28, 2014 at 10:04 PM, 'Jim Shorney' jshorney@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

>
>
> On Wed, 28 May 2014 13:56:36 -0400 (EDT), Chgypsy@... [DrakeRadio]
> wrote:
>
> >As you have mentioned in the past it only uses eight resistors and about
> 32 diodes....the cheap ones....
>
> I wonder what the resistors are for? The band select logic on a real AUX-7
> has
> no resistors. The only resistors on the board are part of the
> fixed-frequency
> crystal oscillator and crystal select circuit.
>
> 1N4148 is commonly used for the diodes. Any silicon that you have on hand
> will
> work. Although 1N540x would be overkill....
>
> 73
>
> -Jim
> NU0C
>
>
> .
>
>
>

[Non-text portions of this message have been removed]

21248. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 16:13:45 UTC
From: Richard Knoppow
Topic: 21235 Message: 21248

----- Original Message -----
From: "handla@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 28, 2014 1:44 PM
Subject: [DrakeRadio] Humming filament transformer L4B

> Hello folks. Just get my hands on a L4B and have started
> to "test drive" it a little.
> When I start up the amp I have a humming noise (vibrating
> sound) from the area around the filament transformer. Just
> want to check if anybody know if this is a common problem
> on the L4B. After about 5 to 10 minutes the sound is gone
> and everything is normal. The sound can maybe come from
> the fan motor but I have tried to check that but next
> thing to do is to disconnect the motor and start up and
> listen. I am from Sweden so we have 50 Hz not 60 in our
> AC.
>
> Anyone with some idea?
> Regards from Sweden
>
> Jan SM5SUH
>
I am not familiar with this particular transformer but
humming or buzzing can be caused by the laminations being
loose. If the transformer has bolts accessible try
tightening them. Also check that the mounting bolts are
tight. The fact that it changes as the transformer warms up
also suggests it may be mechanical.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21249. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 16:30:09 UTC
From: Evan Rolek
Topic: 21235 Message: 21249

Fellow Drake Enthusiasts,

I've not encountered a humming filament transformer but have experienced hum due to the blower motor/mounting or cabinet top. If it were me, I would disconnect the transformer or the blower motor and see which one is at fault before proceeding with the appropriate fix. Sometimes, but not always, using your hands to flex the rear panel or top cover can be used to fault isolate the problem component. If the slight pressure/flexing changes the sound of the hum, then it is likely due to the blower motor/mount.

Please keep the group informed of your progress.

73,

Evan, K9SQG

-----Original Message-----
From: 'Richard Knoppow' 1oldlens1@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 29, 2014 12:13 pm
Subject: Re: [DrakeRadio] Humming filament transformer L4B

----- Original Message -----
From: "handla@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 28, 2014 1:44 PM
Subject: [DrakeRadio] Humming filament transformer L4B

> Hello folks. Just get my hands on a L4B and have started
> to "test drive" it a little.
> When I start up the amp I have a humming noise (vibrating
> sound) from the area around the filament transformer. Just
> want to check if anybody know if this is a common problem
> on the L4B. After about 5 to 10 minutes the sound is gone
> and everything is normal. The sound can maybe come from
> the fan motor but I have tried to check that but next
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tight. The fact that it changes as the transformer warms up
also suggests it may be mechanical.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

21250. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 17:49:23 UTC
From: <handla@...>
Topic: 21235 Message: 21250

Hello again. I have disable the crowbar for the high voltage so I can “poke around” in the amp when its operational and now I know that the sound not coming from the transformer. It is the fan motor that deliverers a low frequency vibration but I have not yet locate where the actual sound is generated. I wonder if the vibration is worse when the amp running on 50 Hz instead of 60?

Thanks for the comments regarding this topic. I now hope that I will find what chassi part

that make this sound the first 5 minutes of operation...

Jan / SM5SUH

From: mailto:DrakeRadio@yahoogroups.com
Sent: Thursday, May 29, 2014 6:30 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Humming filament transformer L4B

Fellow Drake Enthusiasts,

I've not encountered a humming filament transformer but have experienced hum due to the blower motor/mounting or cabinet top. If it were me, I would disconnect the transformer or the blower motor and see which one is at fault before proceeding with the appropriate fix. Sometimes, but not always, using your hands to flex the rear panel or top cover can be used to fault isolate the problem component. If the slight pressure/flexing changes the sound of the hum, then it is likely due to the blower motor/mount.

Please keep the group informed of your progress.

73,

Evan, K9SQG

-----Original Message-----
From: 'Richard Knoppow' 1oldlens1@....com [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 29, 2014 12:13 pm
Subject: Re: [DrakeRadio] Humming filament transformer L4B

----- Original Message -----
From: "handla@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 28, 2014 1:44 PM
Subject: [DrakeRadio] Humming filament transformer L4B

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> listen. I am from Sweden so we have 50 Hz not 60 in our
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I am not familiar with this particular transformer but humming or buzzing can be caused by the laminations being loose. If the transformer has bolts accessible try tightening them. Also check that the mounting bolts are tight. The fact that it changes as the transformer warms up also suggests it may be mechanical.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...tcom.com

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21251. Re: [DrakeRadio] T4XC No CW output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 18:13:06 UTC
From: Garey Barrell
Topic: 21236 Message: 21251

Tim -

You should read up to a half volt or so on the BAL MOD DC input. There are two diodes in series
to ground (part of the diode quad mixer) that are forward biased. These are typically
Germanium diodes, so typically 0.2 - 0.3 V per diode.

Resistors R104, 105 and 106 are the source of this positive voltage, with R105 being the 'front'
part of the GAIN control.

Do you get output in AM MODE?? The BAL MOD gets a fixed DC voltage in AM from R103, and should
produce a 15 - 20W carrier output with no modulation.

Does it work in SSB?? The DC voltage comes in on the same coax as modulation for SSB, so can
eliminate the coax (short, open, etc.) as the source of the problem. If you disconnect the coax
at either end, you should get about 0 - 1.5 VDC 'unloaded' from R105 wiper.

There is a not too common problem where the diode(s) (located INSIDE T14) short to the can, or
of course one or more diodes can short.

Let us know!!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

tjb813@... [DrakeRadio] wrote:
> I started with a basket case T4XC. Fixed the vfo. Then I fixed the HET oscillator. Then the Carrier oscillator needed some encouragement. Now I get a signal into T14 can, but nothing out. Its the balanced modulator. There should be a dc voltage to upset the modulator so the Carrier can pass through. I think the voltage from the Gain control is too low. Does anyone know what voltage should be put on the diodes in T14 for CW? I would assume it should be at least afew volts. I get 50mV from the Gain pot. All of the switches and knobs are in the correct position. The relay closes (when I key) and I get voltages on V2 right on target.
>
> I guess I'm going to need Garey's CD to figure out where all of the resistors are. Difficult to trace them through. This transmitter was a $10 parts unit from Dayton and I'm really enjoying digging into it. I will enjoy using it with my 2B when it finally works.

>
> Thanks in advance for the help
>
>
> KD8CN
> Tim
>

21252. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 18:30:17 UTC
From: Evan Rolek
Topic: 21235 Message: 21252

Jan,

When I come across this problem (have had about 4 cases of it) I found that it was a trial and error process to fix it. I believe the cause has something to do with loose mounting hardware, slight dimensional changes due to heat, etc. etc. To fix it, I loosen the hardware that attaches the brackets to the rear panel, then I move the the whole assembly slightly (direction is not important), and then retighten the hardware. Sometimes it works on the first try, sometimes the second, sometimes longer.

I found that working on it was best accomplished on my workbench. I would disconnect all the cables from the RF deck, remove the tubes and chimneys, CAREFULLY with protective eye wear, and disconnect the fan leads and use jumper leads to power just the fan, not the transformer, etc. etc. However, your amp might be modified or different in some way so please proceed with extreme caution.

73,

Evan

-----Original Message-----
From: handla@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 29, 2014 1:49 pm
Subject: Re: [DrakeRadio] Humming filament transformer L4B

Hello again. I have disable the crowbar for the high voltage so I can “poke around” in the amp when its operational and now I know that the sound not coming from the transformer. It is the fan motor that deliverers a low frequency vibration but I have not yet locate where the actual sound is generated. I wonder if the vibration is worse when the amp running on 50 Hz instead of 60?

Thanks for the comments regarding this topic. I now hope that I will find what chassi part

that make this sound the first 5 minutes of operation...

Jan / SM5SUH

From: mailto:DrakeRadio@yahoogroups.com
Sent: Thursday, May 29, 2014 6:30 PM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] Humming filament transformer L4B

Fellow Drake Enthusiasts,

I've not encountered a humming filament transformer but have experienced hum due to the blower motor/mounting or cabinet top. If it were me, I would disconnect the transformer or the blower motor and see which one is at fault before proceeding with the appropriate fix. Sometimes, but not always, using your hands to flex the rear panel or top cover can be used

to fault isolate the problem component. If the slight pressure/flexing changes the sound of the hum, then it is likely due to the blower motor/mount.

Please keep the group informed of your progress.

73,

Evan, K9SQG

-----Original Message-----
From: 'Richard Knoppow' 1oldlens1@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 29, 2014 12:13 pm
Subject: Re: [DrakeRadio] Humming filament transformer L4B

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<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Wednesday, May 28, 2014 1:44 PM
Subject: [DrakeRadio] Humming filament transformer L4B

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> sound) from the area around the filament transformer. Just
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> thing to do is to disconnect the motor and start up and
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loose. If the transformer has bolts accessible try
tightening them. Also check that the mounting bolts are
tight. The fact that it changes as the transformer warms up
also suggests it may be mechanical.

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Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21253. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 19:02:47 UTC
From: Dino Papas
Topic: 21235 Message: 21253

Ditto what Evan said?.exactly the same procedure I?ve used to cure my fan vibration, although on my original fan I just couldn?t seem to get rid of it. I ended up buying a used fan on eBay but in time it developed similar vibration.

As Evan says, it?s trial and error and I found that the internal brackets are probably the culprit. You might try first loosening the back panel screws and retightening them?.that worked for a while once on mine but in the long run opening it up and playing with those internal brackets is what quieted it.

Once you have it nice and quiet then gingerly put it back together to maintain that orientation; doing other maintenance on the amp can upset it and it?s very frustrating when you pack it back up and the darn vibration is there again. So I?d recommend if you gotta take it apart to just bite the bullet and check to see if the vibration is there by powering it up separately before reassembling it. Yeah, it?s a pain in the butt but not as much as having to take it apart and put it back together repeatedly.

And actually the real reason it hums is ?cause it doesn?t know the words?.so sorry, just couldn?t resist! ;-)

73 - Dino KL0S

On May292014, at 1430 PM, Evan Rolek k9sqg@... [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

> Jan,
>
> When I come across this problem (have had about 4 cases of it) I found that it was a trial and error process to fix it. I believe the cause has something to do with loose mounting hardware, slight dimensional changes due to heat, etc. etc. To fix it, I loosen the hardware that attaches the brackets to the rear panel, then I move the the whole assembly slightly (direction is not important), and then retighten the hardware. Sometimes it works on the first try, sometimes the second, sometimes longer.
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> I found that working on it was best accomplished on my workbench. I would disconnect all the cables from the RF deck, remove the tubes and chimneys, CAREFULLY with protective eye wear, and disconnect the fan leads and use jumper leads to power just the fan, not the transformer, etc. etc. However, your amp might be modified or different in some way so please proceed with extreme caution.
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> 73,
>
> Evan
>
> -----Original Message-----
> From: handla@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>

> Sent: Thu, May 29, 2014 1:49 pm
> Subject: Re: [DrakeRadio] Humming filament transformer L4B
>
> Hello again. I have disable the crowbar for the high voltage so I can ?poke around? in the amp when its operational and now I know that the sound not coming from the transformer. It is the fan motor that deliverers a low frequency vibration but I have not yet locate where the actual sound is generated. I wonder if the vibration is worse when the amp running on 50 Hz instead of 60?
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> that make this sound the first 5 minutes of operation...
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> Jan / SM5SUH
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> From: mailto:DrakeRadio@yahoogroups.com
> Sent: Thursday, May 29, 2014 6:30 PM
> To: DrakeRadio@yahoogroups.com
> Subject: Re: [DrakeRadio] Humming filament transformer L4B
>
> Fellow Drake Enthusiasts,
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>
> Please keep the group informed of your progress.
>
> 73,
>
> Evan, K9SQG
>
> -----Original Message-----
> From: 'Richard Knoppow' 1oldlens1@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
> To: DrakeRadio <DrakeRadio@yahoogroups.com>
> Sent: Thu, May 29, 2014 12:13 pm
> Subject: Re: [DrakeRadio] Humming filament transformer L4B
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> ----- Original Message -----
> From: "handla@... [DrakeRadio]"
> <DrakeRadio@yahoogroups.com>
> To: <DrakeRadio@yahoogroups.com>
> Sent: Wednesday, May 28, 2014 1:44 PM
> Subject: [DrakeRadio] Humming filament transformer L4B
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> tightening them. Also check that the mounting bolts are
> tight. The fact that it changes as the transformer warms up
> also suggests it may be mechanical.
>
> --
> Richard Knoppow
> Los Angeles
> WB6KBL
> dickburk@...
>
> [Non-text portions of this message have been removed]
>
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>
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>
>

[Non-text portions of this message have been removed]

21254. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 20:42:34 UTC
From: Jim Shorney
Topic: 20472 Message: 21254

914s will work if you have them. Otherwise, I would go with 4148s. They are common as dirt and cheap.

The resistors are still a mystery to me. They duplicate what is already present on the Digital Control board, and so aren't needed at all. If I go ahead and get a couple of these to finish out my radios I will leave them off.

73

-Jim
NU0C

On Thu, 29 May 2014 10:28:40 -0500, 'Tom Evans, AG9X' Tom.AG9X@... [DrakeRadio] wrote:

>Jim,
>
>The 8 resistors are 100k pull-down resistors. The diodes are spec'd as
>IN914.
>
>Tom, AG9X
>
>
>
>On Wed, May 28, 2014 at 10:04 PM, 'Jim Shorney' jshorney@...
>[DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>
>>
>>
>> On Wed, 28 May 2014 13:56:36 -0400 (EDT), Chgypsy@... [DrakeRadio]
>> wrote:
>>
>> >As you have mentioned in the past it only uses eight resistors and about
>> 32 diodes....the cheap ones....
>>
>> I wonder what the resistors are for? The band select logic on a real AUX-7
>> has
>> no resistors. The only resistors on the board are part of the
>> fixed-frequency
>> crystal oscillator and crystal select circuit.
>>
>> 1N4148 is commonly used for the diodes. Any silicon that you have on hand
>> will
>> work. Although 1N540x would be overkill....
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>> 73

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>> -Jim
>> NU0C

--

"A deep understanding of reality is exactly the same thing as laziness." - Wally, "Dilbert"

21255. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 20:55:57 UTC
From: Garey Barrell
Topic: 20472 Message: 21255

Same diodes. Common page in many Data Sheets.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:
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>
> The resistors are still a mystery to me. They duplicate what is already present
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>
>
>
> ------------------------------------
> Posted by: "Jim Shorney" <jshorney@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21256. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 22:48:29 UTC
From: Chgypsy@...
Topic: 20472 Message: 21256

Jim,
The article said early TR7s didn't have them. loose quote, no harm in putting them in anyway.
As far as the PC board ...short memory FARcircuits .com I think
Carl WD8nhk

The resistors are still a mystery to me. They duplicate what is already present on the Digital Control board, and so aren't needed at all. If I go ahead and get a couple of these to finish out my radios I will leave them off.

-Jim
NU0C

-----Original Message-----
From: 'Jim Shorney' jshorney@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Thu, May 29, 2014 4:42 pm
Subject: Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

914s will work if you have them. Otherwise, I would go with 4148s. They are common as dirt and cheap.

The resistors are still a mystery to me. They duplicate what is already present on the Digital Control board, and so aren't needed at all. If I go ahead and get a couple of these to finish out my radios I will leave them off.

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"A deep understanding of reality is exactly the same thing as laziness." -
Wally, "Dilbert"

Posted by: "Jim Shorney" <jshorney@...>

Yahoo Groups Links

[Non-text portions of this message have been removed]

21257. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-29 22:53:53 UTC
From: Chgypsy@...
Topic: 20472 Message: 21257

It sure looks simple to replicate, and would be a
neat project. Don, WB5HAK

Hi Don, I have built four, yes they are simple and as stated the hardest thing was the connectors
73's Carl WD8NHK

[Non-text portions of this message have been removed]

21258. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 00:51:43 UTC
From: Jim Shorney
Topic: 20472 Message: 21258

Hmm, that's the first I have heard of that. I didn't read through the whole article. I'm dealing wiht an abraded cornea right now, and reading is a bit of a chore. Easy enough to check, the DC board is right there next to where you plug in the AUX-7. If it has the resistors there is no need to populate them on the FAUX-7.

73

-Jim
NU0C

On Thu, 29 May 2014 18:48:29 -0400 (EDT), Chgypsy@... [DrakeRadio] wrote:

>
>Jim,
> The article said early TR7s didn't have them. loose quote, no harm in putting them in anyway.
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>-----Original Message-----
>From: 'Jim Shorney' jshorney@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
>To: DrakeRadio <DrakeRadio@yahoogroups.com>
>Sent: Thu, May 29, 2014 4:42 pm
>Subject: Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...
>
>
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>NU0C
>
>On Thu, 29 May 2014 10:28:40 -0500, 'Tom Evans, AG9X' Tom.AG9X@...
>[DrakeRadio] wrote:
>
>>Jim,
>>
>>The 8 resistors are 100k pull-down resistors. The diodes are spec'd as
>>IN914.
>>
>>Tom, AG9X
>>
>>
>>
>>On Wed, May 28, 2014 at 10:04 PM, 'Jim Shorney' jshorney@...
>>[DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>>
>>>>
>>>>
>>>> On Wed, 28 May 2014 13:56:36 -0400 (EDT), Chgypsy@... [DrakeRadio]
>>>> wrote:
>>>>
>>>> >As you have mentioned in the past it only uses eight resistors and about
>>>> 32 diodes....the cheap ones....
>>>>
>>>> I wonder what the resistors are for? The band select logic on a real AUX-7
>>>> has
>>>> no resistors. The only resistors on the board are part of the
>>>> fixed-frequency
>>>> crystal oscillator and crystal select circuit.
>>>>
>>>> 1N4148 is commonly used for the diodes. Any silicon that you have on hand
>>>> will
>>>> work. Although 1N540x would be overkill....
>>>>
>>>> 73
>>>>
>>>> -Jim
>>>> NU0C
>
>--
>
> "A deep understanding of reality is exactly the same thing as laziness." -
>Wally, "Dilbert"
>
>

>
>
>------------------------------------
>Posted by: "Jim Shorney" <jshorney@inebraska.com>
>------------------------------------
>
>Yahoo Groups Links
>
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>
>[Non-text portions of this message have been removed]
>
>

--
☐There☐s something out of place ☐ let☐s go and poke it with a stick.☐ ☐ The Doctor, "Amy☐s Choice"

21259. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 01:12:14 UTC
From: Jim Shorney
Topic: 20472 Message: 21259

OK, smart guy, how come they have different numbers? :D

73

-Jim

On Thu, 29 May 2014 16:55:57 -0400, Garey Barrell k4oah@...
[DrakeRadio] wrote:

>Same diodes. Common page in many Data Sheets.

--

"I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"

21260. R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 01:34:28 UTC
From: David Nichols
Topic: 21260 Message: 21260

Hello All,
Well, Im thinking my R-4B isnt hearing like it should.
I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
So, which step didnt I perform correctly?
Is there a better way to balance the Passband than trying to match the pitch? I am getting the same thing with the R-4B as I got with my TR-4CW one side is noticeably louder and my ears just dont hear a matched pitch at any adjustment point.

David Nichols
KX7C - Addy, WA

[Non-text portions of this message have been removed]

21261. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 01:50:45 UTC
From: Garey Barrell
Topic: 20472 Message: 21261

Jim -

Hope your eye(s) recover soon!! Did we do something 'less than smart' and get caught? Safety glasses?

I'm almost recovered from my surgery, so we'll be up to fighting condition soon..... :-)

The 1N914 has been around for many years, and was the 'defacto' diode back in the 60's..... The
1N4148 came much later, and I don't really know the difference. I suspect it is the same die,
but a different packaging/sealing/manufacturing process of some sort. The 1N914 may have had
different lead material.... The 1N4148 came out before the 'lead-free' crap started so don't
think that's it. We used to spot-weld 'cordwood' modules with 1N914, so they may have had some
nickel or 'duvet' in the leads.

Same-O.......

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Jim Shorney' jshorney@... [DrakeRadio] wrote:
> OK, smart guy, how come they have different numbers? :D
>
> 73
>
> -Jim
>
>
> On Thu, 29 May 2014 16:55:57 -0400, Garey Barrell k4oah@...
> [DrakeRadio] wrote:
>
>> Same diodes. Common page in many Data Sheets.
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

>
> ------------------------------------
> Posted by: "Jim Shorney" <jshorney@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21262. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 01:58:08 UTC
From: Garey Barrell
Topic: 21260 Message: 21262

Mis-aligned Passband Tuner probably. Remember the center between the dots is zero beat, and for
CW you should be nearer to one of the dots unless you prefer a low beat note, in which case you
may be closer to the middle. When you switch to 0.4, you have to repeak the Passband control.

If you have a good noise generator, (Palomar Noise Bridge, etc.,) you can view the audio output
with one of the PC audio spectrum analyzers and 'see' the passband as you adjust. Generally speaking, if you set up the mechanics properly, and center the Passband while peaking the slugs
on 0.4 kHz, you should come out pretty close. Make sure the NOTCH is OFF.

Normally the you should lose less than an S-Unit from 4.8k to 0.4k B/W.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
>
> Hello All,
> Well, Im thinking my R-4B isnt hearing like it should.
> I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
> So, which step didnt I perform correctly?
> Is there a better way to balance the Passband than trying to match the pitch? I am getting the same thing with the R-4B as I got with my TR-4CW one side is noticeably louder and my ears just dont hear a matched pitch at any adjustment point.
>
>
> David Nichols
> KX7C - Addy, WA
>
>

21263. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 01:58:37 UTC
From: David Nichols
Topic: 21260 Message: 21263

Ok I am back at it, picking up at Passband tunner step 2.
When I adjust the little screw on the back of the passband tuner box I can hear some buzzing in the speaker. I can make it louder and weaker with the adjustment but it wont go away.
I have determined that if I touch the 12BE6, V3 tube it really comes in. (I know, dont touch it) hi hi
Another thing I have noticed since I did this alignment, when I first turn it on the S meter heads up scale and jogs back a bit and then heads back up scale before settling down on zero.. is this strange?

David Nichols
KX7C - Addy, WA

From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 29, 2014 6:34 PM
Subject: [DrakeRadio] R-4B receive??

Hello All,
Well, Im thinking my R-4B isnt hearing like it should.
I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
So, which step didnt I perform correctly?
Is there a better way to balance the Passband than trying to match the pitch? I am getting the same thing with the R-4B as I got with my TR-4CW one side is noticeably louder and my ears just dont hear a matched pitch at any adjustment point.

David Nichols
KX7C - Addy, WA

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21264. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 02:14:23 UTC
From: Garey Barrell
Topic: 21260 Message: 21264

David -

Generally speaking it's best to leave that screw alone. It rarely gets out of place unless someone has been twisting on it! :-)

It's difficult to adjust the first few times you do it. If you don't have test gear, you can
recover it by rotating the Passband tuning knob from one dot to the other on 2.4 kHz b/w. What
the screw does is move the entire Passband up or down in frequency, so you can set it in the
middle of the 6 kHz 'roofing' filter and preceding transformer bandwidths. The 'hiss' on either
side never sounds 'exactly' the same, but is similar in 'pitch' when it's right.

The other approach is to tune through the CALibrator signal on 4.8 kHz and note the S-Meter as
you tune across. You should hear the beat note out at 2.5 khz or so, and as you tune through
zero beat and out the other side the tone should be the same frequency on either dot of the 4.8
line.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok I am back at it, picking up at Passband tunner step 2.
> When I adjust the little screw on the back of the passband tuner box I can hear some buzzing in the speaker. I can make it louder and weaker with the adjustment but it wont go away.
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>
> David Nichols
> KX7C - Addy, WA
>
>
>

>
> _____
> From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, May 29, 2014 6:34 PM
> Subject: [DrakeRadio] R-4B receive??
>
>
>
>
>
>
> Hello All,
> Well, Im thinking my R-4B isnt hearing like it should.
> I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
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>
> David Nichols
> KX7C - Addy, WA
>
>

21265. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 03:05:30 UTC
From: David Nichols
Topic: 21260 Message: 21265

Hello Garey,
Well I have a bunch of test gear, I may not know how to use it to the fullest extent but I can follow instructions. I have been thinking that IFR service monitor should be able to do this if I was smart enough to know how to use it. It has the tracking gen and all but I have never used it.
I have been installing the new filter cap in the T-4XB while I waited for someone to answer me on this.

I do have a Palomar noise bridge and I even found it. Oh, that little screw on the back has been everywhere it will go now so I "need" to fix that little thing. hi hi

David Nichols
KX7C - Addy, WA

From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, May 29, 2014 7:14 PM
Subject: Re: [DrakeRadio] R-4B receive??

David -

Generally speaking it's best to leave that screw alone. It rarely gets out of place unless someone has been twisting on it! :-)

It's difficult to adjust the first few times you do it. If you don't have test gear, you can
recover it by rotating the Passband tuning knob from one dot to the other on 2.4 kHz b/w. What
the screw does is move the entire Passband up or down in frequency, so you can set it in the
middle of the 6 kHz 'roofing' filter and preceding transformer bandwidths. The 'hiss' on either
side never sounds 'exactly' the same, but is similar in 'pitch' when it's right.

The other approach is to tune through the CALibrator signal on 4.8 kHz and note the S-Meter as
you tune across. You should hear the beat note out at 2.5 khz or so, and as you tune through
zero beat and out the other side the tone should be the same frequency on either dot of the 4.8
line.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Ok I am back at it, picking up at Passband tunner step 2.
> When I adjust the little screw on the back of the passband tuner box I can hear some buzzing in the speaker. I can make it louder and weaker with the adjustment but it wont go away.
> I have determined that if I touch the 12BE6, V3 tube it really comes in. (I know, dont touch it) hi hi
> Another thing I have noticed since I did this alignment, when I first turn it on the S meter heads up scale and jogs back a bit and then heads back up scale before settling down on zero.. is this strange?
>
> David Nichols
> KX7C - Addy, WA
>
>
>
>
> _____
> From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, May 29, 2014 6:34 PM
> Subject: [DrakeRadio] R-4B receive??
>
>
>
>
>
>
>
> Hello All,
> Well, Im thinking my R-4B isnt hearing like it should.
> I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
> So, which step didnt I perform correctly?
> Is there a better way to balance the Passband than trying to match the pitch? I am getting the same thing with the R-4B as I got with my TR-4CW one side is noticeably louder and my ears just dont hear a matched pitch at any adjustment point.
>
> David Nichols
> KX7C - Addy, WA
>
>

[Non-text portions of this message have been removed]

21266. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 03:29:39 UTC
From: Jim Shorney
Topic: 20472 Message: 21266

I can always count on a rocket scientist for an answer that at least sounds reasonable.

Got in a little argument with a mulberry sapling that was getting too chummy with one end of my 80 Meter dipole. It fought back. I won. Well actually, N0QYP and his tree cutter had the final say.

My glasses do have safety lenses in them, but it snuck around the side with a left hook.... The other eye is fine, it's the integration that sucks. Doc says I should be healed up in 24-48 hours. I can see well enough to solder, as long as it's not SMT. I'll decide in the morning if I stay home from work another day.

73

-Jim
NU0C

On Thu, 29 May 2014 21:50:45 -0400, Garey Barrell k4oah@...
[DrakeRadio] wrote:

>Jim -
>
>Hope your eye(s) recover soon!! Did we do something 'less than smart' and get caught?
>Safety glasses?
>
>I'm almost recovered from my surgery, so we'll be up to fighting condition soon.....
:-)
>
>The 1N914 has been around for many years, and was the 'defacto' diode back in the
60's..... The
>1N4148 came much later, and I don't really know the difference. I suspect it is the same
die,
>but a different packaging/sealing/manufacturing process of some sort. The 1N914 may have
had
>different lead material.... The 1N4148 came out before the 'lead-free' crap started so
don't
>think that's it. We used to spot-weld 'cordwood' modules with 1N914, so they may have had
some
>nickel or 'duvet' in the leads.
>
>Same-O.......
>
>73, Garey - K4OAH
>Glen Allen, VA
>

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>and TR-4/C Service Supplement CDs
><www.k4oah.com>
>
>'Jim Shorney' jshorney@... [DrakeRadio] wrote:
>> OK, smart guy, how come they have different numbers? :D
>>
>> 73
>>
>> -Jim
>>
>>
>> On Thu, 29 May 2014 16:55:57 -0400, Garey Barrell k4oah@...
>> [DrakeRadio] wrote:
>>
>>> Same diodes. Common page in many Data Sheets.
>> --
>>
>> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>>
>>
>>
>>
>> ------------------------------------
>> Posted by: "Jim Shorney" <jshorney@...>
>> ------------------------------------
>>
>> Yahoo Groups Links
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>

--
Ham Radio NU0C
Lincoln, Nebraska, U.S.S.A.
TR7/RV7/R7A/L7, TR6/RV6, T4XC/R4C/L4B, NCL2000, SB104A, R390A, GT550A/RV550A, HyGain 3750, IBM PS/2 - all vintage, all the time!

"Give a man a URL, and he will learn for an hour; teach him to Google, and he will learn for a lifetime."

HyGain 3750 User's Group - http://groups.yahoo.com/group/HyGain_3750/
http://incolor.inetnebr.com/jshorney
http://www.nebraskaghosts.org

21267. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 03:56:36 UTC
From: Steve VK2SJA
Topic: 20472 Message: 21267

Not that WikiPedia should always be treated as Gospel but...

"The 1N4148 replaced the 1N914[citation needed], which had a much higher leakage current (5 microamps vs. 25 nanoamps). Since leakage is almost never a desirable property, today manufacturers produce the 1N4148 and sell it as either part number.[2]"

And apparently the 1N4148 has double the forward current handling capabilities of of the 914. 914 at 75mA, and the 4148 has 150mA.

>
> OK, smart guy, how come they have different numbers? :D
>
> 73
>
> -Jim
>
>
> On Thu, 29 May 2014 16:55:57 -0400, Garey Barrell k4oah@...
> [DrakeRadio] wrote:
>
>>Same diodes. Common page in many Data Sheets.
>
> --
>
> "I aim to misbehave." - Captain Malcolm Reynolds, "Serenity"
>
>
>

21268. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 04:21:08 UTC
From: Richard Knoppow
Topic: 21235 Message: 21268

----- Original Message -----
From: "Dino Papas kl0s@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: "Mail List - Drake Radio" <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 29, 2014 12:02 PM
Subject: Re: [DrakeRadio] Humming filament transformer L4B

Ditto what Evan said?.exactly the same procedure I?ve used
to cure my fan vibration, although on my original fan I just
couldn?t seem to get rid of it. I ended up buying a used
fan on eBay but in time it developed similar vibration.

As Evan says, it?s trial and error and I found that the
internal brackets are probably the culprit. You might try
first loosening the back panel screws and retightening
them?.that worked for a while once on mine but in the long
run opening it up and playing with those internal brackets
is what quieted it.

Once you have it nice and quiet then gingerly put it back
together to maintain that orientation; doing other
maintenance on the amp can upset it and it?s very
frustrating when you pack it back up and the darn vibration
is there again. So I?d recommend if you gotta take it apart
to just bite the bullet and check to see if the vibration is
there by powering it up separately before reassembling it.
Yeah, it?s a pain in the butt but not as much as having to
take it apart and put it back together repeatedly.

And actually the real reason it hums is ?cause it doesn?t
know the words?.so sorry, just couldn?t resist! ;-)

73 - Dino KL0S

On May292014, at 1430 PM, Evan Rolek k9sqg@...
[DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:

I have been reading over the thread and am now confused
as to if the hum is coming from the transformer or the
blower. My suggestion was for the transformer since it is
fairly common for transformers to have mechanical hum or
buzz.

--
Richard Knoppow
Los Angeles
WB6KBL

dickburk@...

21269. Re: [DrakeRadio] Humming filament transformer L4B

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 12:30:50 UTC
From: Richard Knoppow
Topic: 21235 Message: 21269

----- Original Message -----
From: "'Richard Knoppow' 1oldlens1@...
[DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Thursday, May 29, 2014 9:21 PM
Subject: Re: [DrakeRadio] Humming filament transformer L4B

>
> ----- Original Message -----
> From: "Dino Papas kl0s@... [DrakeRadio]"
> <DrakeRadio@yahoogroups.com>
> To: "Mail List - Drake Radio" <DrakeRadio@yahoogroups.com>
> Sent: Thursday, May 29, 2014 12:02 PM
> Subject: Re: [DrakeRadio] Humming filament transformer L4B
>
>
> On May292014, at 1430 PM, Evan Rolek k9sqg@...
> [DrakeRadio] <DrakeRadio@yahoogroups.com> wrote:
>
> I have been reading over the thread and am now
> confused
> as to if the hum is coming from the transformer or the
> blower. My suggestion was for the transformer since it is
> fairly common for transformers to have mechanical hum or
> buzz.
>
>
I guess I didn't read carefully enough:-(I see now
the OP says its NOT the transformer. Never mind.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21270. TR-4Cw rit - very low audio when in 500Hz filter position

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 13:00:31 UTC
From: mikek4qu@...
Topic: 21270 Message: 21270

When I put the rig in the 500Hz CW filter position, the audio output is VERY low and only the strongest signal are heard with the AF and RF gain controls fully open. Suggestions? Thanks...

[Non-text portions of this message have been removed]

21271. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 13:52:34 UTC
From: Garey Barrell
Topic: 21260 Message: 21271

David -

Well, I've never had an IFR, so can't help there. You mention tracking generator, so it may perform as a spectrum analyzer and would be good.

Ideally what you want to do is to scan a signal across the bandwidth of the tracking filter.
Easiest would be a signal that would sweep from say 5.640 to 5.650 MHz, along with a 'receiver'
that is scanning 45 to 55 kHz in 'sync'. Ideally, that receiver output would be applied to a
scope screen to register signal strength vs amplitude. The resultant 'picture' should look something like the filter passband picture on page 22 of the manual. As you adjust the Passband
tuner, the size, shape and position of that plot will change, and you just continue adjusting
for that picture.

The Noise bridge and AF spectrum analyzer method works in a similar fashion, except the noise
bridge puts a 'white' noise into the front end, which is essentially 'filling' the receiver passband with a constant 'hiss' across all frequencies. This 'flat' noise signal is shaped by
the filter passband(s) and is output is therefore shaped like the passband. The 'analyzer', something like 'Spectrascan' software or similar can display this shape on the PC screen.

I 'think' the IFR can do something to accomplish this task, but I have no idea how to do it.
Perhaps someone on the list can help??

I'm working on a project called the 'Poor Ham's Simple Network Analyzer'. It uses a couple of
Chinese modules to build a 1-30 MHz signal generator that can be swept over any specified range,
and an RF detector with a logarithmic output covering a range from +10 to -80 dBM. It works great for scanning a crystal filter and making a list of amplitude vs frequency that can be plotted using Excel or other similar program. The other part is a 'Network Analyzer Terminal'
which is a device that uses a display like a cellphone that controls the PHSNA and plots the
output on screen. Currently it can make a scan for each press of a space bar, which takes about
a second, but software is still under development to make it capable of scanning continuously,
like a spectrum analyzer. PC boards are available for the PHSNA, (less than $100 total cost),

and a kit is available for the NAT for $65. More info at the 'PHSNA' Yahoo group.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Nichols hamcomm7@... [DrakeRadio] wrote:
> Hello Garey,
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> I have been installing the new filter cap in the T-4XB while I waited for someone to answer me on this.
>
> I do have a Palomar noise bridge and I even found it. Oh, that little screw on the back has been everywhere it will go now so I "need" to fix that little thing. hi hi
>
> David Nichols
> KX7C - Addy, WA
>
>
>
>
> _____
> From: "Garey Barrell k4oah@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, May 29, 2014 7:14 PM
> Subject: Re: [DrakeRadio] R-4B receive??
>
>
>
>
> David -
>
> Generally speaking it's best to leave that screw alone. It rarely gets out of place unless
> someone has been twisting on it! :-)
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> recover it by rotating the Passband tuning knob from one dot to the other on 2.4 kHz b/w. What
> the screw does is move the entire Passband up or down in frequency, so you can set it in the
> middle of the 6 kHz 'roofing' filter and preceding transformer bandwidths. The 'hiss' on either
> side never sounds 'exactly' the same, but is similar in 'pitch' when it's right.

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> The other approach is to tune through the CALibrator signal on 4.8 kHz and note the S-Meter as
> you tune across. You should hear the beat note out at 2.5 khz or so, and as you tune through
> zero beat and out the other side the tone should be the same frequency on either dot of the 4.8
> line.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> David Nichols hamcomm7@... [DrakeRadio] wrote:
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>> From: "David Nichols hamcomm7@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
>> To: "drakeradio@yahoogroups.com" <DrakeRadio@yahoogroups.com>
>> Sent: Thursday, May 29, 2014 6:34 PM
>> Subject: [DrakeRadio] R-4B receive??
>>
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>> Hello All,
>> Well, Im thinking my R-4B isnt hearing like it should.
>> I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.

>> So, which step didnt I perform correctly?
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>> David Nichols
>> KX7C - Addy, WA
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>

21272. Re: [DrakeRadio] TR7 R7 AUX 7 ...KIT...

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 13:59:50 UTC
From: Garey Barrell
Topic: 20472 Message: 21272

There's a better answer that sounds like the 'real' answer!!

So it's just a 'better' device that meets all the 1N914 specifications, except exceeds some in a
positive fashion!

Learn something new every day on this group!

Like, watch out for frisky Mulberry saplings!!!

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

'Steve VK2SJA' vk2sja@... [DrakeRadio] wrote:
> Not that WikiPedia should always be treated as Gospel but...
>
> "The 1N4148 replaced the 1N914[citation needed], which had a much higher
> leakage current (5 microamps vs. 25 nanoamps). Since leakage is almost
> never a desirable property, today manufacturers produce the 1N4148 and
> sell it as either part number.[2]"
>
> And apparently the 1N4148 has double the forward current handling
> capabilities of of the 914. 914 at 75mA, and the 4148 has 150mA.
>
>
>
>
>> OK, smart guy, how come they have different numbers? :D
>>
>> 73
>>
>> -Jim
>>
>>
>> On Thu, 29 May 2014 16:55:57 -0400, Garey Barrell k4oah@...
>> [DrakeRadio] wrote:
>>
>>> Same diodes. Common page in many Data Sheets.
>>

21273. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 14:09:37 UTC
From: Paul Christensen
Topic: 21260 Message: 21273

If he has access to an IFR SM with tracking generator, it would work well for mechanical and crystal filters but likely not for L/C filters in the 50 kHz range. As I recall, most IFR models generate RF down to about 250 kHz. What I don't know is if the receiver/spectrum analyzer works down to 50 kHz. That would be important to carry out the test Garey describes below. Res. bandwidth on these service monitors is pretty awful for measuring close-in carrier performance but should be perfectly adequate for response sweeps.

PC-based VNAs are pretty cool for this application -- once you get past the software learning curve.

Probably the fastest and easiest method for a one-time job is Garey's suggestion of using an inexpensive noise bridge and PC with audio FFT software.

Paul, W9AC

From: mailto:DrakeRadio@yahoogroups.com
Sent: Friday, May 30, 2014 9:52 AM
To: DrakeRadio@yahoogroups.com
Subject: Re: [DrakeRadio] R-4B receive??

David -

Well, I've never had an IFR, so can't help there. You mention tracking generator, so it may perform as a spectrum analyzer and would be good.

Ideally what you want to do is to scan a signal across the bandwidth of the tracking filter.
Easiest would be a signal that would sweep from say 5.640 to 5.650 MHz, along with a 'receiver'
that is scanning 45 to 55 kHz in 'sync'. Ideally, that receiver output would be applied to a
scope screen to register signal strength vs amplitude. The resultant 'picture' should look something like the filter passband picture on page 22 of the manual. As you adjust the Passband
tuner, the size, shape and position of that plot will change, and you just continue adjusting
for that picture.

The Noise bridge and AF spectrum analyzer method works in a similar fashion, except the noise
bridge puts a 'white' noise into the front end, which is essentially 'filling' the receiver passband with a constant 'hiss' across all frequencies. This 'flat' noise signal is shaped by
the filter passband(s) and is output is therefore shaped like the passband. The 'analyzer', something like 'Spectrascan' software or similar can display this shape on the PC screen.

I 'think' the IFR can do something to accomplish this task, but I have no idea how to do it.
Perhaps someone on the list can help??

I'm working on a project called the 'Poor Ham's Simple Network Analyzer'. It uses a couple of
Chinese modules to build a 1-30 MHz signal generator that can be swept over any specified range,
and an RF detector with a logarithmic output covering a range from +10 to -80 dBM. It works great for scanning a crystal filter and making a list of amplitude vs frequency that can be plotted using Excel or other similar program. The other part is a 'Network Analyzer Terminal'
which is a device that uses a display like a cellphone that controls the PHSNA and plots the
output on screen. Currently it can make a scan for each press of a space bar, which takes about
a second, but software is still under development to make it capable of scanning continuously,
like a spectrum analyzer. PC boards are available for the PHSNA, (less than $100 total cost),
and a kit is available for the NAT for $65. More info at the 'PHSNA' Yahoo group.

73, Garey - K4OAH
Glen Allen, VA

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> I have been installing the new filter cap in the T-4XB while I waited for someone to answer me on this.
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> To: DrakeRadio@yahoogroups.com
> Sent: Thursday, May 29, 2014 7:14 PM
> Subject: Re: [DrakeRadio] R-4B receive??

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[Non-text portions of this message have been removed]

21274. Re: [DrakeRadio] TR-4Cw rit - very low audio when in 500Hz filter position

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 15:09:53 UTC
From: Garey Barrell
Topic: 21270 Message: 21274

Mike -

Possibly bad filter. Also possibly dirty switch contacts.

Best check is to tune through the Calibrator signal, noting where the signal drops by one S-unit
at the highest and lowest frequencies. If these are not ~500 Hz apart, or the signal amplitude
changes considerably between these two points, you probably have a failed filter. IF this test
looks good, it's more likely a dirty switch contact(s) or other 'mechanical' problem.

73, Garey - K4OAH
Glen Allen, VA

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<www.k4oah.com>

mikek4qu@... [DrakeRadio] wrote:
> When I put the rig in the 500Hz CW filter position, the audio output is VERY low and only the strongest signal are heard with the AF and RF gain controls fully open. Suggestions? Thanks...
>
>
> [Non-text portions of this message have been removed]
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> ------------------------------------
> Posted by: mikek4qu@...
> ------------------------------------
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> Yahoo Groups Links
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21275. Re: [DrakeRadio] T4XC No CW output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 15:26:55 UTC
From: tjb813@...
Topic: 21236 Message: 21275

Haven't tried am or SSB. I have not been able to locate R104 or R106 yet. I need your CD. I just haven't got around to ordering it yet. I did trace the shielded cable to mode switch and traced it to the wiper of R105. I suspect there are alot of out of spec resistors in this rig. Having a blast with this one. Haven;t had this much fun since I took a literal basket case TR3 that the owner said was junk and re-built it. He loves it now. With good info these are pretty easy to fix. Thanks for the help.

Tim
KD8CN

[Non-text portions of this message have been removed]

21276. Re: [DrakeRadio] TR-4Cw rit - very low audio when in 500Hz filter position

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 15:29:58 UTC
From: Evan Rolek
Topic: 21270 Message: 21276

Mike,

Sounds to me like the radio might need an alignment and/or the 500 hz filter has gone south. What might be diagnostic is to examine performance on all bands to ensure it is not band specific. If it were me, I would activate the calibrator, tune back and fort across it and draw a plot of signal strength as a function of frequency. Then, I would switch in the 500 hz filter and do the same thing and plot it as well. If the filter has degraded, and/or the radio has taken the signal outside the centered passband, then severe degradation might be experienced.

However, I haven't owned a TR-4 in over ten years so my experiences with it have faded. Please keep us informed of your progress.

73,

Evan, K9SQG

-----Original Message-----
From: mikek4qu@... [DrakeRadio] <DrakeRadio@yahoogroups.com>
To: DrakeRadio <DrakeRadio@yahoogroups.com>
Sent: Fri, May 30, 2014 9:00 am
Subject: [DrakeRadio] TR-4Cw rit - very low audio when in 500Hz filter position

When I put the rig in the 500Hz CW filter position, the audio output is VERY low and only the strongest signal are heard with the AF and RF gain controls fully open. Suggestions? Thanks...

[Non-text portions of this message have been removed]

[Non-text portions of this message have been removed]

21277. Re: [DrakeRadio] T4XC No CW output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 16:15:29 UTC
From: Garey Barrell
Topic: 21236 Message: 21277

Tim -

Switching to AM will give you a reference point. IF the carrier output is present, the problem
may be in the R104/R106 area. If NO output in AM the problem is elsewhere.

These resistors are on the Relay board, just alongside the right side of the relay.

73, Garey - K4OAH
Glen Allen, VA

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tjb813@... [DrakeRadio] wrote:
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> ------------------------------------
> Posted by: tjb813@...
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> Yahoo Groups Links
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21278. WTB RV-4c

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 16:54:19 UTC
From: mg16631@...
Topic: 21278 Message: 21278

Wanted to buy RV-4c. If you have one that you would like to part with. Contact me with price and condition.

Thanks
Mike

Sent from my iPhone

21279. Re: WTB RV-4c

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 19:35:22 UTC
From: dj_coffman@...
Topic: 21278 Message: 21279

What is a realistic price for a good condition RV-4C?

73,

Doug - N9XTF

[Non-text portions of this message have been removed]

21280. New file uploaded to DrakeRadio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 21:15:08 UTC
From: DrakeRadio@yahoogroups.com
Topic: 3736 Message: 21280

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the DrakeRadio
group.

File : /9-500.pdf
Uploaded by : k4oah <k4oah@...>
Description : PHSNA of TR-4CW 500Hz filter

You can access this file at the URL:
https://groups.yahoo.com/group/DrakeRadio/files/9-500.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

k4oah <k4oah@...>

21281. PHSNA Scan of TR-4CW filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 21:22:06 UTC
From: Garey Barrell
Topic: 21278 Message: 21281

I just posted an image of the passband of the 500 Hz filter from a TR-4CW. File name is 9-500.PDF

This was generated by the PHSNA device(s) I mentioned earlier.

Don't be too critical, the individual oscillator/detector/filter is spread out on the bench, no
shielding, no boxes. Clip leads for interconnect! Hardly a recipe for great stop band results. The detector sits at about -50 dB from random pickup (0-500 MHz).

But with a little more work, this could be a very handy tool.

73, Garey - K4OAH
Glen Allen, VA

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21282. Re: [DrakeRadio] SPOT volume TOO LOUD!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-30 22:23:32 UTC
From: GALE STEWARD
Topic: 21246 Message: 21282

I had the same issue with my B-line. I built a 20DB PAD and installed it in audio line. This dropped down the level of the SPOT tone and I turned up the AF level on the R4B to match that same level.

Worked good here...

73, Stew K3ND

From: "rochep@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Thursday, May 29, 2014 11:16 AM
Subject: [DrakeRadio] SPOT volume TOO LOUD!

I am using my R4A/T4XB in "separates" mode, have the FUNCTION switch on the R4A to external mute, and use the SPOT position on the T4XB so my TX frequency matches my RX frequency. That is all fine, but when chasing weak DX my GAIN controls on RX are pretty high, and when I go to SPOT to bring the TX VFO to my listening frequency the volume of the TX oscillator nearly blows my head off! Of course I can turn down RF or AF gain so this does not happen (and then when I am on frequency turn them back up again), but what a pain.

This is NOT the same as the sidetone volume. Is there some way to decrease the intensity of the SPOT signal (other than move the TX farther away from my RX)?

paul

[Non-text portions of this message have been removed]

Posted by: rochep@comcast.net

Yahoo Groups Links

[Non-text portions of this message have been removed]

21283. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 03:08:41 UTC
From: David Nichols
Topic: 21260 Message: 21283

Ok now!
I just might have this figured out now. To start with I have been seeing instructions that wasnt there!
Where it says to Place The PASSBAND SELECTOR lever to .4????? MY Minds Eye saw the 4 and just put the lever on 4.8.. Let me tell you, you can not do the task with the lever in that position. Its actually not so hard to do if you place it in the point four position.

The other thing I figured out today is with the four slugs on the back of the passband tuner.

It is possible to have the highest negative voltage and not hear anything! I figured out that I had to keep turning the slug even after I reached the high reading in order to get some sound. Each slug is able to stay at the high voltage setting and also bring in the sound. I have this nice split alignment tool so I felt at ease playing with the little springs.

I still have a little doubt about the center screw adjustment but it is sounding good this evening.

David Nichols
KX7C - Addy, WA

From: "Garey Barrell k4oah@mindspring.com [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Friday, May 30, 2014 6:52 AM
Subject: Re: [DrakeRadio] R-4B receive??

David -

Well, I've never had an IFR, so can't help there. You mention tracking generator, so it may perform as a spectrum analyzer and would be good.

Ideally what you want to do is to scan a signal across the bandwidth of the tracking filter.
Easiest would be a signal that would sweep from say 5.640 to 5.650 MHz, along with a 'receiver'
that is scanning 45 to 55 kHz in 'sync'. Ideally, that receiver output would be applied to a
scope screen to register signal strength vs amplitude. The resultant 'picture' should look something like the filter passband picture on page 22 of the manual. As you adjust the Passband
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The Noise bridge and AF spectrum analyzer method works in a similar fashion, except the noise
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>> I just did my first alignment on it. I like what I hear with the Passband selector on 4 but when I step it down to 2, I almost cant hear the signal anymore. It really drops down, now Im talking about receiving a signal with the antenna. I would expect to hear a little less but not such a big drop as I am getting.
>> So, which step didnt I perform correctly?
>> Is there a better way to balance the Passband than trying to match the pitch? I am getting the same thing with the R-4B as I got with my TR-4CW one side is noticeably louder and my ears just dont hear a matched pitch at any adjustment point.
>>
>> David Nichols
>> KX7C - Addy, WA
>>
>>
>

[Non-text portions of this message have been removed]

21284. Re: PHSNA Scan of TR-4CW filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 03:29:57 UTC
From: Chris Kepus
Topic: 21278 Message: 21284

Hi Garey,

That's pretty nice! Any time you get ready to share more details, especially as you progress, I would be most appreciative.

73,

Chris

W7JPG

"Any day above ground is a good day"

[Non-text portions of this message have been removed]

21285. Re: [DrakeRadio] PHSNA Scan of TR-4CW filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 03:43:46 UTC
From: Paul Christensen
Topic: 21278 Message: 21285

Garey,

Just saw the results of your work. Impressive, and more than adequate for I.F. filter alignment purposes. Are you using plotting software with the PHSNA to create the X-Y scales? Looks like the - 6dB points are roughly 600Hz and very close to the expected 500 Hz bandwidth!

Paul, W9AC

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Friday, May 30, 2014 5:22 PM
Subject: [DrakeRadio] PHSNA Scan of TR-4CW filter

I just posted an image of the passband of the 500 Hz filter from a TR-4CW. File name is 9-500.PDF

This was generated by the PHSNA device(s) I mentioned earlier.

Don't be too critical, the individual oscillator/detector/filter is spread out on the bench, no
shielding, no boxes. Clip leads for interconnect! Hardly a recipe for great stop band results. The detector sits at about -50 dB from random pickup (0-500 MHz).

But with a little more work, this could be a very handy tool.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

[Non-text portions of this message have been removed]

21286. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 04:02:19 UTC
From: Richard Knoppow
Topic: 21260 Message: 21286

----- Original Message -----
From: "David Nichols hamcomm7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 30, 2014 8:08 PM
Subject: Re: [DrakeRadio] R-4B receive??

Ok now!
I just might have this figured out now. To start with I have
been seeing instructions that wasnt there!
Where it says to Place The PASSBAND SELECTOR lever to
.4????? MY Minds Eye saw the 4 and just put the lever on
4.8.. Let me tell you, you can not do the task with the
lever in that position. Its actually not so hard to do if
you place it in the point four position.

The other thing I figured out today is with the four slugs
on the back of the passband tuner.

It is possible to have the highest negative voltage and not
hear anything! I figured out that I had to keep turning the
slug even after I reached the high reading in order to get
some sound. Each slug is able to stay at the high voltage
setting and also bring in the sound. I have this nice split
alignment tool so I felt at ease playing with the little
springs.

I still have a little doubt about the center screw
adjustment but it is sounding good this evening.

David Nichols
KX7C - Addy, WA

I actually saw this in your posts and MISSED it so you
are not the only one who can get numbers wrong.
If it helps any the pass band tuner is a four section
filter with variable _coupling_ to give it variable
bandwidth. When set up at the narrowest bandwidth the four
adjustments are pretty much independent of each other but
when expanded to maximum they interact. So, its tuned at
minimum bandwidth. You have discovered what happens when
its at maximum bandwidth.
This is a very clever devise. The first commercial
receiver with a tunable passband was the Collins 75A4. It
had a mechanical filter and changed bandwidth by having
three different filters on a switch. Beause the filter

frequency could not be changed the tuning had to be done indirectly by adjusing both the BFO and the main tuning together. This requires a complicated mechanical coupling. Drake accomplishes the same thing with fixed main and BFO tuning by making the filter itself tunable. The filter does not have quite the steep selectivity of a mechanical filter but its very good. In order to duplicate the selectivity of a mechanical filter more tunable coils (and maybe some tunable caps too) would be needed and it would become impractical.
I use alligator clips to adjust the slugs. This may not be to everyone's taste but I find it works well. I can grip the very tip of the slug wire and turn it then let it go without backlash. I also found that if the sound is too far different in the two sideband positions I can sometimes get them better by very carefully peaking the coils again at 400 hz bandwidth. It will _never_ be quite the same because the pass band is not quite symmetrical. Have a look at the graph in the handook. The expansion is also not symmetrical because of the type of coupling between tuned circuits, this also is apparent from the graphs and is the reason the range lines on the panel are not symmetrical. You will find a similar effect in the variable bandwidth IF filters in some Hallicrafters receivers. While the filter in the R4B may not be as steep as a mechanical or crystal filter its better than the filters in many conventional receivers. In combination with the notch filter, which works very well, its possible to tune out most QRM. BTW, the filter can be used for SSB in the 1.5 khz position too which may help when things get crowded. It may not sound great but you will be able to separate stations. The pass band tuning can also be used to push QRM off the edge of the filter. Between the PBT and the notch filter you can pull most stations out of the mush.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...

21287. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 05:41:45 UTC
From: jim lewis
Topic: 21189 Message: 21287

Garey,

OK, here is an update after staying away for a while: TR4 power supply lost HV. Bad filter cap. Used ps from T4X (which works fine with T4X), blew fuse. Found bad 6JB6 (filament short) in TR4 which caused T4X ps to pop fuses. Replaced 6JB6, and TR4 xmtr back working; still no rcvr. Can here 9 mHz and 21.5 mHz. Didn't listen for the 16 mHz mixer, though. Tube resistance cks good so far. My TR4 has a 6HS6 for V4, vs:6EV7, but chassis stamped 6HS6. V and R charts don't jive! Must be one of the TR4's caught in transistion? I will order the CD for the TR4. In the meantime, looking for more suggestions. Thanks

Jim, K5EH

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Wednesday, May 28, 2014 8:25 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

jIM -

No problem... Been there! This is why I like to leave the 'history' of a project on the message. Makes it easier to go back and keep things straight.

Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or working.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
>
> Ahhh...duh. Have too many checks going on and forgot what was working and what was not! Must regroup and give my 70 year old brain a rest!
>
> CUL. 73
>
> Jim- K5EH
>
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 28, 2014 10:30 AM

> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> The same PTO is used to transmit and receive. I think you said transmit was ok??
>
> You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator on 21.5
> MHz, and the PreMixer output at 16.0 MHz.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > Garey,
> > I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?
> >
> > Thanks, Jim, K5EH
> >
> >
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Tuesday, May 27, 2014 12:11 PM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > Jim -
> >
> > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
> >
> > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> > then swap V7 with V12. If no change, swap back.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs

> > <www.k4oah.com>
> >
> > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > >
> > > Garey,
> > > Voltage checks on V17 good. On to other checks. Tnx
> > > 73, Jim- K5EH
> > > ----- Original Message -----
> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Monday, May 26, 2014 11:23 AM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > >
> > >
> > >
> > > Jim -
> > >
> > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> > > preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
> > > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
> > >
> > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > and TR-4/C Service Supplement CDs
> > > <www.k4oah.com>
> > >
> > > k5eh k5eh@... [DrakeRadio] wrote:
> > > > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > > > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.
> > > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > problem? Comments?
> > > > Thanks, Jim, K5EH
> > > >

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21288. TR-4C - Need help finding that "Dip"!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 10:41:19 UTC
From: Steve VK2SJA
Topic: 21260 Message: 21288

Hi Garey et-al,

Well I admit it. I'm confounded and confused.

I performed the PA Neutralization on my TR-4C using the Cold Screen method and a home brew W7ZOI RF power meter based on a AD8307 chip (I got the circuit from http://www.qrp.pops.net).

I seem to remember getting minimum Neutralization dip at about -70dBm (but tonight I can't find this written down in my lab-notebook. Grrr. I hate it when I forget to write important stuff down). Anyway the whole Neutralization process seemed to go "by the book" and worked very well. Or so I thought.

Now I have had the radio on-air with good signal reports. The art of tuning for max-smoke has been mastered. Doing this is easy enough and the radio makes plenty of power now all bands. But I kept reading "Dip the plate"!!! So I thought it best that I verify that my max-smoke did in fact equal minimum plate current.

Problem.

I have one of those really bad bouncy plate meters. I had placed a 47uF electro across it. This did tame the wild swings somewhat. But try as hard as I might I couldn't convince myself I was seeing a nice dip with max power out. In fact I found it hard to find any dip at all! I actually concluded that while the capacitor might tame the meter somewhat. That it may also be hiding a sharp and fast dip. And that I was tuning straight across it without seeing it.

So I went QRT for a couple of weekends and modified the radio to bring out the voltage sense for the plate meter to an external meter. Also built myself a FET-VM (since I didn't have a VTVM).

And I *still* can't easily find this illusive dip!

Here's what I seem to have on 40m tuning up into a dummy load:-

Tune for "max smoke" using external RF watt meter gets around 225+ watts at about 440mA plate current.

Adjusting the Plate control CCW from that point causes the plate current to start to rise. All good.

However adjusting the Plate control CW from that same point causes the plate current to drop. It continues to drop smoothly to a low of 395mA before it starts to rise again. Power out at that minimum point has dropped to about 135 watts.

So broadly speaking is this the "dip" I'm looking for (in which case it is quite broad) and if so then what have I done wrong re: Neutralization? And what should I do to fix it???

Other questions:

Is the plate current resonance "dip" I'm looking for very sharp or broad? By how much would it typically dip by?

I went back up to 29Mhz just for a quick sanity check and tried using the PA Neutralization procedure from the manual. I wasn?t doing the actual adjustment I was just seeing if I could swing the Plate control through resonance while the plate current was set to 200mA. Once again it seems that if I move CW from the "max smoke" position plate current starts to drop away but I found I couldn't find the bottom of the dip as the Plate control hit the stop before I found the bottom. Max smoke is very close to full CW.

Last question. How critical is the tune up of the final tank circuit for max smoke (resonance) *before* you adjust the PA Neutralization using the cold screen method? I did do this but I'm wondering if a tank control was carelessly bumped out of position while I was doing the adjustment.

Help... What should I try now?

73, Steve.

21289. Re: [DrakeRadio] TR-4C - Need help finding that "Dip"!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 15:43:11 UTC
From: Richard Knoppow
Topic: 21260 Message: 21289

As you increase loading the dip will broaden out to the
point where its barely visible. This is normal and is a
characteristic of the tuned plate circuit. The sharpness of
the dip depends on the Q of the plate tank circuit, as the
load is increased, that is as the antenna load is coupled
more closely to the tank, the effective Q is lowered so the
resonance broadens out. At the peak load the plate tuning
will be more visible as a slight increase in power than as a
decrease in plate current but you should still check to be
sure the minimum plate current is still coincident with
maximum output. The Q of a parallel resonant circuit also
affects its resonant frequency a little which is why the
plate dip will change a bit as the load is increased. It
sounds like your TX is operating normally. The bouncing
meters are a PITA but the problem seems inherent in the
meter.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@...
----- Original Message -----
From: "'Steve VK2SJA' vk2sja@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Saturday, May 31, 2014 3:41 AM
Subject: [DrakeRadio] TR-4C - Need help finding that "Dip"!

> Hi Garey et-al,
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> Well I admit it. I'm confounded and confused.
>
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> Cold Screen method
> and a home brew W7ZOI RF power meter based on a AD8307
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> worked very well. Or
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> tuning for max-smoke has been mastered. Doing this is easy
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> somewhat. That it
> may also be hiding a sharp and fast dip. And that I was
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> radio to bring out
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> adjustment.
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> Help... What should I try now?
>
> 73, Steve.
>
>
>

>
>
> ---
> Posted by: "Steve VK2SJA" <vk2sja@...>
> ---
>
> Yahoo Groups Links
>
>
>

21290. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 15:46:57 UTC
From: Garey Barrell
Topic: 21189 Message: 21290

Jim -

OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
CD, which would be a big help in finding your way around the radio. Only version 1 used the 6HS6, all the rest used 6EJ7.

You should be able to hear the PTO, (4.9 to 5.5 MHz,) with 5.5 being 000 on the dial. 5.5 MHz
mixed with 21.5 should produce the 16 MHz in V3. That's the next target.

Don't put a whole lot of stock in the V-R charts. They didn't always change with the schematic. If a reading of V is within 20%, I wouldn't consider it a problem, and if more than
that, take a look at the correct schematic and you'll probably see why! :-) The R readings are
even more 'iffy'. Even if they are taken with a tube type VTVM, they aren't great. With any other meter, they can be all over the map depending upon Ohmmeter voltage and polarity.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

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> Jim, K5EH
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 28, 2014 8:25 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>

>
> jIM -
>
> No problem... Been there! This is why I like to leave the 'history' of a project on the
> message. Makes it easier to go back and keep things straight.
>
> Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or working.
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> 73, Garey - K4OAH
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> > Garey,
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> > Ahhh...duh. Have too many checks going on and forgot what was working and what was not!
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> > CUL. 73
> >
> > Jim- K5EH
> >
> >
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Wednesday, May 28, 2014 10:30 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > Jim -
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> > > Garey,
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> > > ----- Original Message -----
> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > >
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> > > Jim -
> > >
> > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
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> > > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> > > then swap V7 with V12. If no change, swap back.
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> > >
> > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
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> > > > Garey,
> > > > Voltage checks on V17 good. On to other checks. Tnx
> > > > 73, Jim- K5EH
> > > > ----- Original Message -----
> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > >
> > > >
> > > >
> > > > Jim -
> > > >
> > > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> > > > preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what

you mean
> > > > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
> > > >
> > > > 73, Garey - K4OAH
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> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> > > > k5eh k5eh@... [DrakeRadio] wrote:
> > > > > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
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> > > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > > problem? Comments?
> > > > > Thanks, Jim, K5EH
> > > > >
>

21291. Re: [DrakeRadio] TR-4C - Need help finding that "Dip"!

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 18:03:38 UTC
From: Garey Barrell
Topic: 21260 Message: 21291

Steve -

As Richard said, the dip becomes broader as the LOAD increases. But it should still be easily
seen. Your cap may indeed be 'slowing' the response of the meter, making it more difficult to
find. With or without the cap you need to move the PLATE control VERY slowly at the dip to be
sure you get right on it.

Properly neutralized, tuning either way out of the dip should cause the output power to do DOWN. The tank circuit "Q" is highest on 10M, giving the sharpest dip at resonance. It's easier to see if you don't load all the way to maximum output.

Are these 6JB6(A)s? What brand of PA tubes do you have? Are they the SAME brand? "Mixed" brand tubes can neutralize on one band and be off on another, and very occasionally tubes of the
SAME brand can neutralize differently on different bands.

EXTRA output power with plate current 'off resonance' (non neutralized) power is not always where you think it is!! You might be surprised to see the output spectra under those conditions.

225 Watts is MORE than the TR-4C can put out _cleanly_.!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Steve VK2SJA' vk2sja@... [DrakeRadio] wrote:
> Hi Garey et-al,
>
> Well I admit it. I'm confounded and confused.
>
> I performed the PA Neutralization on my TR-4C using the Cold Screen method
> and a home brew W7ZOI RF power meter based on a AD8307 chip (I got the
> circuit from http://www.qrp.pops.net).
>
> I seem to remember getting minimum Neutralization dip at about -70dBm (but
> tonight I can't find this written down in my lab-notebook. Grrr. I hate it
> when I forget to write important stuff down). Anyway the whole
> Neutralization process seemed to go "by the book" and worked very well. Or
> so I thought.
>

> Now I have had the radio on-air with good signal reports. The art of
> tuning for max-smoke has been mastered. Doing this is easy enough and the
> radio makes plenty of power now all bands. But I kept reading "Dip the
> plate"!!! So I thought it best that I verify that my max-smoke did in fact
> equal minimum plate current.
>
> Problem.
>
> I have one of those really bad bouncy plate meters. I had placed a 47uF
> electro across it. This did tame the wild swings somewhat. But try as hard
> as I might I couldn't convince myself I was seeing a nice dip with max
> power out. In fact I found it hard to find any dip at all! I actually
> concluded that while the capacitor might tame the meter somewhat. That it
> may also be hiding a sharp and fast dip. And that I was tuning straight
> across it without seeing it.
>
> So I went QRT for a couple of weekends and modified the radio to bring out
> the voltage sense for the plate meter to an external meter. Also built
> myself a FET-VM (since I didn't have a VTVM).
>
> And I *still* can't easily find this illusive dip!
>
> Here's what I seem to have on 40m tuning up into a dummy load:-
>
> Tune for "max smoke" using external RF watt meter gets around 225+ watts
> at about 440mA plate current.
>
> Adjusting the Plate control CCW from that point causes the plate current
> to start to rise. All good.
>
> However adjusting the Plate control CW from that same point causes the
> plate current to drop. It continues to drop smoothly to a low of 395mA
> before it starts to rise again. Power out at that minimum point has
> dropped to about 135 watts.
>
> So broadly speaking is this the "dip" I'm looking for (in which case it is
> quite broad) and if so then what have I done wrong re: Neutralization? And
> what should I do to fix it???
>
> Other questions:
>
> Is the plate current resonance "dip" I'm looking for very sharp or broad?
> By how much would it typically dip by?
>
> I went back up to 29Mhz just for a quick sanity check and tried using the
> PA Neutralization procedure from the manual. I wasn’t doing the actual
> adjustment I was just seeing if I could swing the Plate control through
> resonance while the plate current was set to 200mA. Once again it seems
> that if I move CW from the "max smoke" position plate current starts to
> drop away but I found I couldn't find the bottom of the dip as the Plate

> control hit the stop before I found the bottom. Max smoke is very close to
> full CW.
>
> Last question. How critical is the tune up of the final tank circuit for
> max smoke (resonance) *before* you adjust the PA Neutralization using the
> cold screen method? I did do this but I'm wondering if a tank control was
> carelessly bumped out of position while I was doing the adjustment.
>
> Help... What should I try now?
>
> 73, Steve.
>
>
>
>

21292. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 19:27:27 UTC
From: jim lewis
Topic: 21189 Message: 21292

Garey,

Ok I can hear the PTO (5.500 mHz) @0000.0, and the premixer @16.0 mHz. Where shoul I look next?

Jim, k5EH

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 31, 2014 10:46 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
CD, which would be a big help in finding your way around the radio. Only version 1 used the 6HS6, all the rest used 6EJ7.

You should be able to hear the PTO, (4.9 to 5.5 MHz,) with 5.5 being 000 on the dial. 5.5 MHz
mixed with 21.5 should produce the 16 MHz in V3. That's the next target.

Don't put a whole lot of stock in the V-R charts. They didn't always change with the schematic. If a reading of V is within 20%, I wouldn't consider it a problem, and if more than
that, take a look at the correct schematic and you'll probably see why! :-) The R readings are
even more 'iffy'. Even if they are taken with a tube type VTVM, they aren't great. With any other meter, they can be all over the map depending upon Ohmmeter voltage and polarity.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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stamped 6HS6. V and R charts don't jive! Must be one of the TR4's caught in transistion? I will order the CD for the TR4. In the meantime, looking for more suggestions. Thanks
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> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Wednesday, May 28, 2014 8:25 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> jIM -
>
> No problem... Been there! This is why I like to leave the 'history' of a project on the
> message. Makes it easier to go back and keep things straight.
>
> Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or working.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> > CUL. 73
> >
> > Jim- K5EH
> >
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> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Wednesday, May 28, 2014 10:30 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > The same PTO is used to transmit and receive. I think you said transmit was ok??
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> > MHz, and the PreMixer output at 16.0 MHz.
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> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
> > >
> > > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> > > then swap V7 with V12. If no change, swap back.
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> > > > Garey,
> > > > Voltage checks on V17 good. On to other checks. Tnx
> > > > 73, Jim- K5EH
> > > > ----- Original Message -----
> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com

> > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > >
> > > >
> > > >
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> > > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
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This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21293. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 19:32:35 UTC
From: jim lewis
Topic: 21189 Message: 21293

Garey,

I forgot to add: I can see the S meter deflect when I tune accross the 1kHz oscillator, but still no audio or signal indications on the S meter.

Jim, K5EH

----- Original Message -----
From: Garey Barrell k4oah@mindspring.com [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 31, 2014 10:46 AM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
CD, which would be a big help in finding your way around the radio. Only version 1 used the 6HS6, all the rest used 6EJ7.

You should be able to hear the PTO, (4.9 to 5.5 MHz,) with 5.5 being 000 on the dial. 5.5 MHz
mixed with 21.5 should produce the 16 MHz in V3. That's the next target.

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http://www.avast.com

[Non-text portions of this message have been removed]

21294. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 19:52:14 UTC
From: Garey Barrell
Topic: 21189 Message: 21294

Jim -

OK. Do you have 'hiss' if you turn AF GAIN full CW?

I understand transmit is OK???

So which is it, does 'the S-Meter deflect when you tune across the 100 kHz Calibrator signal',
or there are NO 'signal indications on the S-Meter'??

Voltage on Pin 1 of V19 in RECEIVE?

POWER OFF..... Measure resistance from Pin 7 of V3, V7, V11 and V12 to chassis. V3 should be
about 2K, the rest should be less than 100 ohms.

73, Garey - K4OAH
Glen Allen, VA

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> > > <www.k4oah.com>
> > >
> > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > > Garey,
> > > > I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?
> > > >
> > > > Thanks, Jim, K5EH
> > > >
> > > >
> > > > ----- Original Message -----

> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > >
> > > >
> > > >
> > > > Jim -
> > > >
> > > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
> > > >
> > > > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> > > > then swap V7 with V12. If no change, swap back.
> > > >
> > > > 73, Garey - K4OAH
> > > > Glen Allen, VA
> > > >
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> > > > > Garey,
> > > > > Voltage checks on V17 good. On to other checks. Tnx
> > > > > 73, Jim- K5EH
> > > > > ----- Original Message -----
> > > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
> > > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > > >
> > > > >
> > > > >
> > > > > Jim -
> > > > >
> > > > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
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> > > > > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
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> > > > > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > > > problem? Comments?
> > > > > > Thanks, Jim, K5EH
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>

21295. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 20:28:35 UTC
From: jim lewis
Topic: 21189 Message: 21295

Garey,

No hiss with AF gain full CW; transmit OK; S meter deflects when tuning across 100 kHz Calibrator (misspoke b-4, said 1kHz); no signal indications on S mete, however.

voltage on pin 1, V19 is 250 vdc; pin 7 res. V3 = 2k, pin 7 on V7, V11, V12 = 100 ohms or less.

73, Jim, K5EH

----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 31, 2014 2:52 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

OK. Do you have 'hiss' if you turn AF GAIN full CW?

I understand transmit is OK???

So which is it, does 'the S-Meter deflect when you tune across the 100 kHz Calibrator signal',
or there are NO 'signal indications on the S-Meter'??

Voltage on Pin 1 of V19 in RECEIVE?

POWER OFF..... Measure resistance from Pin 7 of V3, V7, V11 and V12 to chassis. V3 should be
about 2K, the rest should be less than 100 ohms.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
>
> I forgot to add: I can see the S meter deflect when I tune accross the 1kHz oscillator, but still no audio or signal indications on the S meter.
>
> Jim, K5EH
>
> ----- Original Message -----

> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 31, 2014 10:46 AM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
> CD, which would be a big help in finding your way around the radio. Only version 1 used the
> 6HS6, all the rest used 6EJ7.
>
> You should be able to hear the PTO, (4.9 to 5.5 MHz,) with 5.5 being 000 on the dial. 5.5 MHz
> mixed with 21.5 should produce the 16 MHz in V3. That's the next target.
>
> Don't put a whole lot of stock in the V-R charts. They didn't always change with the
> schematic. If a reading of V is within 20%, I wouldn't consider it a problem, and if more than
> that, take a look at the correct schematic and you'll probably see why! :-) The R readings are
> even more 'iffy'. Even if they are taken with a tube type VTVM, they aren't great. With any
> other meter, they can be all over the map depending upon Ohmmeter voltage and polarity.
>
> 73, Garey - K4OAH
> Glen Allen, VA
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> >
> > Jim, K5EH
> >
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]

> > To: DrakeRadio@yahoogroups.com
> > Sent: Wednesday, May 28, 2014 8:25 PM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > jIM -
> >
> > No problem... Been there! This is why I like to leave the 'history' of a project on the
> > message. Makes it easier to go back and keep things straight.
> >
> > Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or
working.
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> > > Ahhh...duh. Have too many checks going on and forgot what was working and what was
not! Must regroup and give my 70 year old brain a rest!
> > >
> > > CUL. 73
> > >
> > > Jim- K5EH
> > >
> > >
> > > ----- Original Message -----
> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Wednesday, May 28, 2014 10:30 AM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > >
> > >
> > >
> > > Jim -
> > >
> > > The same PTO is used to transmit and receive. I think you said transmit was ok??
> > >
> > > You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator
on 21.5
> > > MHz, and the PreMixer output at 16.0 MHz.
> > >
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> > > > ----- Original Message -----
> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > >
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> > > > Jim -
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> > > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
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> > > > > Garey,
> > > > > Voltage checks on V17 good. On to other checks. Tnx
> > > > > 73, Jim- K5EH
> > > > > ----- Original Message -----
> > > > > From: Garey Barrell k4oah@mindspring.com [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
> > > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > > >
> > > > >

> > > > >
> > > > > Jim -
> > > > > >
> > > > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
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> > > > > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
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>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21296. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 20:57:33 UTC
From: Garey Barrell
Topic: 21189 Message: 21296

Jim -

OK. Are you comfortable around high voltage???

We're not going to intentionally get near it, but HV IS all over that radio.

What I would like you to do is to turn the AF GAIN control to about mid-range. Then touch a screwdriver blade to the center terminal of the AF GAIN pot while holding the insulated handle.
Once you're sure it's on the right spot, lightly touch your finger to the metal blade. You should get a LOUD hum. If you do, the problem is before the AF stage. If NOT, then the problem
is in the V17 stage.

There is NO HV in this area, just be sure what you are touching and don't slip off the terminal.

Report back!

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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> No hiss with AF gain full CW; transmit OK; S meter deflects when tuning across 100 kHz Calibrator (misspoke b-4, said 1kHz); no signal indications on S mete, however.
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> voltage on pin 1, V19 is 250 vdc; pin 7 res. V3 = 2k, pin 7 on V7, V11, V12 = 100 ohms or less.
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> 73, Jim, K5EH
>
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 31, 2014 2:52 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -

>
> OK. Do you have 'hiss' if you turn AF GAIN full CW?
>
> I understand transmit is OK???
>
> So which is it, does 'the S-Meter deflect when you tune across the 100 kHz Calibrator signal',
> or there are NO 'signal indications on the S-Meter'??
>
> Voltage on Pin 1 of V19 in RECEIVE?
>
> POWER OFF..... Measure resistance from Pin 7 of V3, V7, V11 and V12 to chassis. V3 should be
> about 2K, the rest should be less than 100 ohms.
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> 73, Garey - K4OAH
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> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Saturday, May 31, 2014 10:46 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > 6HS6, all the rest used 6EJ7.
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> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Wednesday, May 28, 2014 8:25 PM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Wednesday, May 28, 2014 10:30 AM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
> > > > > Sent: Tuesday, May 27, 2014 12:11 PM

> > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > >
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> > > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
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21297. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 21:19:08 UTC
From: jim lewis
Topic: 21189 Message: 21297

Garey,

Did as you said.... no hum!

Jim, K5EH
----- Original Message -----
From: Garey Barrell k4oah@... [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 31, 2014 3:57 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

OK. Are you comfortable around high voltage???

We're not going to intentionally get near it, but HV IS all over that radio.

What I would like you to do is to turn the AF GAIN control to about mid-range. Then touch a screwdriver blade to the center terminal of the AF GAIN pot while holding the insulated handle.
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> voltage on pin 1, V19 is 250 vdc; pin 7 res. V3 = 2k, pin 7 on V7, V11, V12 = 100 ohms or less.
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> ----- Original Message -----
> From: Garey Barrell k4oah@mindspring.com [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 31, 2014 2:52 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> OK. Do you have 'hiss' if you turn AF GAIN full CW?
>
> I understand transmit is OK???
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> So which is it, does 'the S-Meter deflect when you tune across the 100 kHz Calibrator signal',
> or there are NO 'signal indications on the S-Meter'??
>
> Voltage on Pin 1 of V19 in RECEIVE?
>
> POWER OFF..... Measure resistance from Pin 7 of V3, V7, V11 and V12 to chassis. V3 should be
> about 2K, the rest should be less than 100 ohms.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
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> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > Garey,
> >
> > I forgot to add: I can see the S meter deflect when I tune accross the 1kHz oscillator, but still no audio or signal indications on the S meter.
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> > Jim, K5EH
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> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Saturday, May 31, 2014 10:46 AM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
> > CD, which would be a big help in finding your way around the radio. Only version 1 used the
> > 6HS6, all the rest used 6EJ7.
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> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Wednesday, May 28, 2014 8:25 PM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > Jim- K5EH
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> > > > ----- Original Message -----
> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Wednesday, May 28, 2014 10:30 AM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > > Thanks, Jim, K5EH
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> > > > > ----- Original Message -----
> > > > > From: Garey Barrell k4oah@mindspring.com [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
> > > > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > >
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> > > > > Jim -
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> > > > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY
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> > > > > If you don't have known good tube spares, try swapping V3 with V18. If no change,
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> > > > > then swap V7 with V12. If no change, swap back.
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> > > > > > Voltage checks on V17 good. On to other checks. Tnx
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> > > > > > To: DrakeRadio@yahoogroups.com
> > > > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
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> > > > > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > > > > problem? Comments?
> > > > > > > Thanks, Jim, K5EH
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This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]

21298. New file uploaded to DrakeRadio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 21:27:34 UTC
From: DrakeRadio@yahoogroups.com
Topic: 3736 Message: 21298

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the DrakeRadio
group.

File : /K4OAH - PHSNA/9-500.pdf
Uploaded by : k4oah <k4oah@...>
Description : PHSNA Scan of TR-4CW 500 Hz Filter

You can access this file at the URL:
https://groups.yahoo.com/group/DrakeRadio/files/K4OAH%20-%20PHSNA/9-500.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

k4oah <k4oah@...>

21299. New file uploaded to DrakeRadio

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 21:30:54 UTC
From: DrakeRadio@yahoogroups.com
Topic: 3736 Message: 21299

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the DrakeRadio
group.

File : /K4OAH - PHSNA/6KHZ.pdf
Uploaded by : k4oah <k4oah@...>
Description : PHSNA Scan of TR-7 6 kHz IF Filter.

You can access this file at the URL:
https://groups.yahoo.com/group/DrakeRadio/files/K4OAH%20-%20PHSNA/6KHZ.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

k4oah <k4oah@...>

21300. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 21:37:08 UTC
From: Garey Barrell
Topic: 21189 Message: 21300

Jim -

OK, bad audio stage. Only one tube, how hard can it be!! :-)

Pin voltages on V17. Pins 2, 7 5, 6.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
>
> Did as you said.... no hum!
>
> Jim, K5EH
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 31, 2014 3:57 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>
> OK. Are you comfortable around high voltage???
>
> We're not going to intentionally get near it, but HV IS all over that radio.
>
> What I would like you to do is to turn the AF GAIN control to about mid-range. Then touch
a
> screwdriver blade to the center terminal of the AF GAIN pot while holding the insulated
handle.
> Once you're sure it's on the right spot, lightly touch your finger to the metal blade.
You
> should get a LOUD hum. If you do, the problem is before the AF stage. If NOT, then the
problem
> is in the V17 stage.
>
> There is NO HV in this area, just be sure what you are touching and don't slip off the
terminal.
>

> Report back!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
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> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > Garey,
> >
> > No hiss with AF gain full CW; transmit OK; S meter deflects when tuning across 100 kHz Calibrator (misspoke b-4, said 1kHz); no signal indications on S mete, however.
> >
> > voltage on pin 1, V19 is 250 vdc; pin 7 res. V3 = 2k, pin 7 on V7, V11, V12 = 100 ohms or less.
> >
> > 73, Jim, K5EH
> >
> >
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> > To: DrakeRadio@yahoogroups.com
> > Sent: Saturday, May 31, 2014 2:52 PM
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>
>
>
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]

>
>
>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21301. Re: [DrakeRadio] R-4B receive??

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 21:39:30 UTC
From: David Nichols
Topic: 21260 Message: 21301

Hi Richard,
I never thought about the alligator clip. I did try my small needle nose pliers but they where a miserable failure. Then I searched through my alignment tools and found the split one. It works great, by split I mean it has a small groove at the end instead of a screwdriver blade. Im happy they move with ease, that way I dont get any spring action I have to deal with.

These rigs can be pretty tricky for someone who cut their teeth on 12 volt solid state. While I grew up with tube radio and tv I never worked on any. hi hi

I love having something I can tinker with and then play with when Im done. I just wish I wouldnt blow things up. I seem to be good at that.

David Nichols
KX7C - Addy, WA

From: "'Richard Knoppow' 1oldlens1@... [DrakeRadio]" <DrakeRadio@yahoogroups.com>
To: DrakeRadio@yahoogroups.com
Sent: Friday, May 30, 2014 9:02 PM
Subject: Re: [DrakeRadio] R-4B receive??

----- Original Message -----
From: "David Nichols hamcomm7@... [DrakeRadio]"
<DrakeRadio@yahoogroups.com>
To: <DrakeRadio@yahoogroups.com>
Sent: Friday, May 30, 2014 8:08 PM
Subject: Re: [DrakeRadio] R-4B receive??

Ok now!
I just might have this figured out now. To start with I have
been seeing instructions that wasnt there!
Where it says to Place The PASSBAND SELECTOR lever to
.4????? MY Minds Eye saw the 4 and just put the lever on
4.8.. Let me tell you, you can not do the task with the
lever in that position. Its actually not so hard to do if
you place it in the point four position.

The other thing I figured out today is with the four slugs
on the back of the passband tuner.

It is possible to have the highest negative voltage and not
hear anything! I figured out that I had to keep turning the
slug even after I reached the high reading in order to get
some sound. Each slug is able to stay at the high voltage
setting and also bring in the sound. I have this nice split
alignment tool so I felt at ease playing with the little

springs.

I still have a little doubt about the center screw
adjustment but it is sounding good this evening.

David Nichols
KX7C - Addy, WA

I actually saw this in your posts and MISSED it so you
are not the only one who can get numbers wrong.
If it helps any the pass band tuner is a four section
filter with variable _coupling_ to give it variable
bandwidth. When set up at the narrowest bandwidth the four
adjustments are pretty much independent of each other but
when expanded to maximum they interact. So, its tuned at
minimum bandwidth. You have discovered what happens when
its at maximum bandwidth.
This is a very clever devise. The first commercial
receiver with a tunable passband was the Collins 75A4. It
had a mechanical filter and changed bandwidth by having
three different filters on a switch. Beause the filter
frequency could not be changed the tuning had to be done
indirectly by adjusing both the BFO and the main tuning
together. This requires a complicated mechanical coupling.
Drake accomplishes the same thing with fixed main and BFO
tuning by making the filter itself tunable. The filter does
not have quite the steep selectivity of a mechanical filter
but its very good. In order to duplicate the selectivity of
a mechanical filter more tunable coils (and maybe some
tunable caps too) would be needed and it would become
impractical.
I use alligator clips to adjust the slugs. This may
not be to everyone's taste but I find it works well. I can
grip the very tip of the slug wire and turn it then let it
go without backlash. I also found that if the sound is too
far different in the two sideband positions I can sometimes
get them better by very carefully peaking the coils again at
400 hz bandwidth. It will _never_ be quite the same because
the pass band is not quite symmetrical. Have a look at the
graph in the handook. The expansion is also not symmetrical
because of the type of coupling between tuned circuits, this
also is apparent from the graphs and is the reason the range
lines on the panel are not symmetrical. You will find a
similar effect in the variable bandwidth IF filters in some
Hallicrafters receivers. While the filter in the R4B may
not be as steep as a mechanical or crystal filter its better
than the filters in many conventional receivers. In
combination with the notch filter, which works very well,
its possible to tune out most QRM. BTW, the filter can be
used for SSB in the 1.5 khz position too which may help when
things get crowded. It may not sound great but you will be

able to separate stations. The pass band tuning can also
be used to push QRM off the edge of the filter. Between the
PBT and the notch filter you can pull most stations out of
the mush.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk@....com

[Non-text portions of this message have been removed]

21302. Re: [DrakeRadio] PHSNA Scan of TR-4CW filter

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 22:00:38 UTC
From: Garey Barrell
Topic: 21278 Message: 21302

Paul -

The 'NAT' terminal plots them on the small screen immediately, but the data is captured in Excel
format so it goes directly into Excel if you want to print, pretty up, etc. Repetitive sweeps
are about 2 seconds apart, so not 'real time' but sure a lot better than tuning from end to end!! :-) You can also scan by pressing the SPACE bar.

The basic PHSNA is UNO based and puts out about 0 dBm from 1 - 30 MHz, or 1 - 60 MHz depending
upon plug-in module choice (AD9850 or 9851,) and can be run from a serial terminal. The 'fancy'
stuff is done with the NAT terminal about 3 x 5 'hand-held', from 'Midnight Science Solutions',
George, N2APB. There is also a Windows based controller program, but I haven't tried that yet. Lots of software development going on, I just got v2 of the NAT software which adds touch
screen control. v1 uses an ASCII keyboard with a PS-2 connector. and is all menu / keypress.

Well less than $100 for the PHSNA, and $65 for the NAT kit, + $8 for an enclosure, optional.
I've been working with the PHSNA since about last October, and it's really coming together.

There is also a 'receiver' project under way which will come very close to a spectrum analyzer.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'Paul Christensen' w9ac@... [DrakeRadio] wrote:
> Garey,
>
> Just saw the results of your work. Impressive, and more than adequate for I.F. filter alignment purposes. Are you using plotting software with the PHSNA to create the X-Y scales? Looks like the - 6dB points are roughly 600Hz and very close to the expected 500 Hz bandwidth!
>
> Paul, W9AC
>
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]

> To: DrakeRadio@yahoogroups.com
> Sent: Friday, May 30, 2014 5:22 PM
> Subject: [DrakeRadio] PHSNA Scan of TR-4CW filter
>
>
>
> I just posted an image of the passband of the 500 Hz filter from a TR-4CW. File name is
9-500.PDF
>
> This was generated by the PHSNA device(s) I mentioned earlier.
>
> Don't be too critical, the individual oscillator/detector/filter is spread out on the
bench, no
> shielding, no boxes. Clip leads for interconnect! Hardly a recipe for great stop band
> results. The detector sits at about -50 dB from random pickup (0-500 MHz).
>
> But with a little more work, this could be a very handy tool.
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
>
>
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: "Paul Christensen" <w9ac@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21303. 6HS6 Tube?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 22:02:55 UTC
From: n1ohn@yahoo.com
Topic: 21303 Message: 21303

Hello all :)

Well why looking on the bay for them 6HS6 tubes for my T-4XB and R-4B I noticed that one person has a GE 6HS6 Fisher tube? I never noticed a GE/ Fisher combination before what's the correlation with Fisher and GE?

Another thing that I was thinking of that I never thought of before is the tube ratings well a tube is tested say at 3000 to be NOS and say the tube test well over the NOS at 3400 is it possible that tube may actually fail for running let's say to hot?

I know that NOS ratings and tube testers are relative at best :)

Thanks
Dave :)

Sent from Yahoo Mail on Android

[Non-text portions of this message have been removed]

21304. Re: [DrakeRadio] T4XC No CW output

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 22:15:26 UTC
From: tjb813@...
Topic: 21236 Message: 21304

Garey,
Thanks for the hint on the location of the resistors. Disconnecting the shielded cable from T14. The voltage shifts correctly with the gain control.

Looking deeper I found the pin on T14 that the voltage is applied to was a direct short to ground. Looking into T14 I found D7 and D8 dead shorted.

That would explain a lot of things, as it also shorted the signal to ground at that point. It also explains why Am and SSB don't work either!). I will look for some replacement diodes, (I have a lot of small parts around).

As I stated before this was a basket case parts radio. So I expect to find more issues like this.

Having fun. This is the part of ham radio I really enjoy the most.

Thanks for the help.

Tim
KD8CN

[Non-text portions of this message have been removed]

21305. Re: [DrakeRadio] 6HS6 Tube?

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 22:22:55 UTC
From: Garey Barrell
Topic: 21303 Message: 21305

Yeah, I saw that. You never know, 'there's one born every minute!' :-)

Personally, I would say 'worthless' rather than 'relative'. You can tell 'almost as much' with
an ohmmeter, or getting your finger close to it in circuit. "A" tube tester can be fairly consistent from tube to tube, but absolute values are iffy at best. A receiving tube that gets
hot will 'almost' certainly work well enough to 'play' in most circuits. RF is a little tougher, but not much. Yes, they can be destroyed and still get hot, but not all that likely.

Tube testers test at 60 Hz for the most part, so only a basic idea if most of the elements are
there. 'Emission' type testers tie all the grids together and to the cathode and measure how
the tube works as a rectifier at 60 Hz.

Check with Stan at ESRC1vacuumtubes.com.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'n1ohn@...' n1ohn@... [DrakeRadio] wrote:
> Hello all :)
>
> Well why looking on the bay for them 6HS6 tubes for my T-4XB and R-4B I noticed that one person has a GE 6HS6 Fisher tube? I never noticed a GE/ Fisher combination before what's the correlation with Fisher and GE?
>
> Another thing that I was thinking of that I never thought of before is the tube ratings well a tube is tested say at 3000 to be NOS and say the tube test well over the NOS at 3400 is it possible that tube may actually fail for running let's say to hot?
>
> I know that NOS ratings and tube testers are relative at best :)
>
> Thanks
> Dave :)
>
> Sent from Yahoo Mail on Android
>
>
>

> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: "n1ohn@..." <n1ohn@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

21306. Re: [DrakeRadio] TR-4 RCVR PROBLEM

Yahoo group: DrakeRadio (2014-01 — 2014-05)
Date: 2014-05-31 23:50:09 UTC
From: jim lewis
Topic: 21189 Message: 21306

Garey,

Pin voltages on V17 as follows:

pin 2 = 7.7vdc
pin 5 = 250 vdc
pin 6 = 150 vdc
pin 7 = 0

right in accordance with chart.

Jim, K5EH

----- Original Message -----
From: Garey Barrell k4oah@...m [DrakeRadio]
To: DrakeRadio@yahoogroups.com
Sent: Saturday, May 31, 2014 4:37 PM
Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM

Jim -

OK, bad audio stage. Only one tube, how hard can it be!! :-)

Pin voltages on V17. Pins 2, 7 5, 6.

73, Garey - K4OAH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

'jim lewis' k5eh@... [DrakeRadio] wrote:
> Garey,
>
> Did as you said.... no hum!
>
> Jim, K5EH
> ----- Original Message -----
> From: Garey Barrell k4oah@... [DrakeRadio]
> To: DrakeRadio@yahoogroups.com
> Sent: Saturday, May 31, 2014 3:57 PM
> Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
>
>
>
> Jim -
>

> OK. Are you comfortable around high voltage???
>
> We're not going to intentionally get near it, but HV IS all over that radio.
>
> What I would like you to do is to turn the AF GAIN control to about mid-range. Then touch a
> screwdriver blade to the center terminal of the AF GAIN pot while holding the insulated handle.
> Once you're sure it's on the right spot, lightly touch your finger to the metal blade. You
> should get a LOUD hum. If you do, the problem is before the AF stage. If NOT, then the problem
> is in the V17 stage.
>
> There is NO HV in this area, just be sure what you are touching and don't slip off the terminal.
>
> Report back!
>
> 73, Garey - K4OAH
> Glen Allen, VA
>
> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> and TR-4/C Service Supplement CDs
> <www.k4oah.com>
>
> 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > Garey,
> >
> > No hiss with AF gain full CW; transmit OK; S meter deflects when tuning across 100 kHz Calibrator (misspoke b-4, said 1kHz); no signal indications on S mete, however.
> >
> > voltage on pin 1, V19 is 250 vdc; pin 7 res. V3 = 2k, pin 7 on V7, V11, V12 = 100 ohms or less.
> >
> > 73, Jim, K5EH
> >
> >
> > ----- Original Message -----
> > From: Garey Barrell k4oah@... [DrakeRadio]
> > To: DrakeRadio@yahoogroups.com
> > Sent: Saturday, May 31, 2014 2:52 PM
> > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> >
> >
> >
> > Jim -
> >
> > OK. Do you have 'hiss' if you turn AF GAIN full CW?
> >

> > I understand transmit is OK???
> >
> > So which is it, does 'the S-Meter deflect when you tune across the 100 kHz Calibrator signal',
> > or there are NO 'signal indications on the S-Meter'??
> >
> > Voltage on Pin 1 of V19 in RECEIVE?
> >
> > POWER OFF..... Measure resistance from Pin 7 of V3, V7, V11 and V12 to chassis. V3 should be
> > about 2K, the rest should be less than 100 ohms.
> >
> > 73, Garey - K4OAH
> > Glen Allen, VA
> >
> > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > and TR-4/C Service Supplement CDs
> > <www.k4oah.com>
> >
> > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > Garey,
> > >
> > > I forgot to add: I can see the S meter deflect when I tune accross the 1kHz oscillator, but still no audio or signal indications on the S meter.
> > >
> > > Jim, K5EH
> > >
> > > ----- Original Message -----
> > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > To: DrakeRadio@yahoogroups.com
> > > Sent: Saturday, May 31, 2014 10:46 AM
> > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > >
> > >
> > >
> > > Jim -
> > >
> > > OK. There are eight (8) versions of the TR-4, plus four (4) more of the TR-4C. All are on the
> > > CD, which would be a big help in finding your way around the radio. Only version 1 used the
> > > 6HS6, all the rest used 6EJ7.
> > >
> > > You should be able to hear the PTO, (4.9 to 5.5 MHz,) with 5.5 being 000 on the dial. 5.5 MHz
> > > mixed with 21.5 should produce the 16 MHz in V3. That's the next target.
> > >
> > > Don't put a whole lot of stock in the V-R charts. They didn't always change with the
> > > schematic. If a reading of V is within 20%, I wouldn't consider it a problem, and if more than

> > > that, take a look at the correct schematic and you'll probably see why! :-) The R readings are
> > > even more 'iffy'. Even if they are taken with a tube type VTVM, they aren't great. With any
> > > other meter, they can be all over the map depending upon Ohmmeter voltage and polarity.
> > >
> > > 73, Garey - K4OAH
> > > Glen Allen, VA
> > >
> > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > and TR-4/C Service Supplement CDs
> > > <www.k4oah.com>
> > >
> > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > > Garey,
> > > >
> > > > OK, here is an update after staying away for a while: TR4 power supply lost HV. Bad filter cap. Used ps from T4X (which works fine with T4X), blew fuse. Found bad 6JB6 (filament short) in TR4 which caused T4X ps to pop fuses. Replaced 6JB6, and TR4 xmtr back working; still no rcvr. Can here 9 mHz and 21.5 mHz. Didn't listen for the 16 mHz mixer, though. Tube resistance cks good so far. My TR4 has a 6HS6 for V4, vs:6EV7, but chassis stamped 6HS6. V and R charts don't jive! Must be one of the TR4's caught in transistion? I will order the CD for the TR4. In the meantime, looking for more suggestions. Thanks
> > > >
> > > > Jim, K5EH
> > > >
> > > > ----- Original Message -----
> > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > To: DrakeRadio@yahoogroups.com
> > > > Sent: Wednesday, May 28, 2014 8:25 PM
> > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > >
> > > >
> > > >
> > > > jIM -
> > > >
> > > > No problem... Been there! This is why I like to leave the 'history' of a project on the
> > > > message. Makes it easier to go back and keep things straight.
> > > >
> > > > Lemme know if you can hear those three signals, and if BOTH Rx and Tx are out or working.
> > > >
> > > > 73, Garey - K4OAH
> > > > Glen Allen, VA
> > > >
> > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > and TR-4/C Service Supplement CDs
> > > > <www.k4oah.com>

> > > >
> > > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > > > Garey,
> > > > >
> > > > > Ahhh...duh. Have too many checks going on and forgot what was working and what was not! Must regroup and give my 70 year old brain a rest!
> > > > >
> > > > > CUL. 73
> > > > >
> > > > > Jim- K5EH
> > > > >
> > > > >
> > > > > ----- Original Message -----
> > > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > > To: DrakeRadio@yahoogroups.com
> > > > > Sent: Wednesday, May 28, 2014 10:30 AM
> > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > > >
> > > > >
> > > > >
> > > > > Jim -
> > > > >
> > > > > The same PTO is used to transmit and receive. I think you said transmit was ok??
> > > > >
> > > > > You should be able to hear the PTO (5.5 MHz at 000 on the dial), the BAND oscillator on 21.5
> > > > > MHz, and the PreMixer output at 16.0 MHz.
> > > > >
> > > > > 73, Garey - K4OAH
> > > > > Glen Allen, VA
> > > > >
> > > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > > and TR-4/C Service Supplement CDs
> > > > > <www.k4oah.com>
> > > > >
> > > > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > > > > Garey,
> > > > > > I am beginning to suspect the PTO. I cannot hear the pto on my aux rcvr when I sweep the dial. I can, however, hear the 9mHz osc. shouldn't I be able to hear the pto on another rcvr?
> > > > > >
> > > > > > Thanks, Jim, K5EH
> > > > > >
> > > > > >
> > > > > > ----- Original Message -----
> > > > > > From: Garey Barrell k4oah@... [DrakeRadio]
> > > > > > To: DrakeRadio@yahoogroups.com
> > > > > > Sent: Tuesday, May 27, 2014 12:11 PM
> > > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > > > >

> > > > > >
> > > > > >
> > > > > > Jim -
> > > > > >
> > > > > > Does the relay click?? Same on more than one band?? Change sidebands?? ANY S-Meter indications??
> > > > > >
> > > > > > If you don't have known good tube spares, try swapping V3 with V18. If no change, swap back and
> > > > > > then swap V7 with V12. If no change, swap back.
> > > > > >
> > > > > > 73, Garey - K4OAH
> > > > > > Glen Allen, VA
> > > > > >
> > > > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > > > and TR-4/C Service Supplement CDs
> > > > > > <www.k4oah.com>
> > > > > >
> > > > > > 'jim lewis' k5eh@... [DrakeRadio] wrote:
> > > > > > >
> > > > > > Garey,
> > > > > > Voltage checks on V17 good. On to other checks. Tnx
> > > > > > 73, Jim- K5EH
> > > > > > ----- Original Message -----
> > > > > > From: Garey Barrell k4oah@mindspring.com [DrakeRadio]
> > > > > > To: DrakeRadio@yahoogroups.com
> > > > > > Sent: Monday, May 26, 2014 11:23 AM
> > > > > > Subject: Re: [DrakeRadio] TR-4 RCVR PROBLEM
> > > > > > >
> > > > > > >
> > > > > > >
> > > > > > Jim -
> > > > > > >
> > > > > > V2 Cathode is grounded only in CW, otherwise is floating. It is only active in AM for audio
> > > > > > preamp. It shouldn't affect the AVC (S-Meter indication) which I'm guessing is what you mean
> > > > > > by 'no signal indications'. ?? Check Plate, Screen and Cathode voltages on V17.
> > > > > > >
> > > > > > 73, Garey - K4OAH
> > > > > > Glen Allen, VA
> > > > > > >
> > > > > > Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
> > > > > > and TR-4/C Service Supplement CDs
> > > > > > <www.k4oah.com>
> > > > > > >
> > > > > > k5eh k5eh@... [DrakeRadio] wrote:
> > > > > > > My TR-4, s/n 19360, gave up the ghost. Was working fb. Now, no rcvr
> > > > > > > audio nor signal indications. Xmtr working fb. tcvr/rcvr sw in tvcr pos.

> > > > > > > > Tube ck ok on cker, with exception of V2, 12AV6.Also, doing voltage
> > > > > > > > checks note no cathode voltage on pin 2 of V2. Could this be the
> > > > > > > > problem? Comments?
> > > > > > > > Thanks, Jim, K5EH
> >
>
>
>
>
>
> ---
> This email is free from viruses and malware because avast! Antivirus protection is
active.
> http://www.avast.com
>
>
> [Non-text portions of this message have been removed]
>
>
>
> ------------------------------------
> Posted by: "jim lewis" <k5eh@...>
> ------------------------------------
>
> Yahoo Groups Links
>
>
>
>

This email is free from viruses and malware because avast! Antivirus protection is active.
http://www.avast.com

[Non-text portions of this message have been removed]